

The Central Valley at a Crossroads: Migration and Its Implications

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Foreword

The Great Central Valley is changing quickly and dramatically. Some of the most obvious changes include a rapidly expanding urban population, a steady flow of migrants into and within the region, stronger ties to the Bay Area and Los Angeles regions, a burgeoning stock of relatively affordable housing, a new University of California campus in Merced, and plans for a high-speed rail line through the heart of the San Joaquin Valley. Taken together, these changes suggest that the Great Central Valley will be the next major growth center in California.

That growth will be determined largely by migration flows to, from, and within the valley. To better understand those patterns, PPIC demographers Hans Johnson and Joseph Hayes have tracked these flows from the mid-1990s to the current year. Dividing the valley into four subregions—Upper Sacramento Valley, Sacramento Metro, North San Joaquin Valley, and South San Joaquin Valley—they find that each has experienced different growth patterns but also that each has attracted more new residents than it sends to other parts of the state. The authors also note that this in-state migration is almost matched by international migration to the valley. These migration flows have brought a great deal of diversity to the valley as a whole—in income, age, race and ethnicity, and educational levels—as well as significant variation across its subregions.

Why has the Great Central Valley emerged as a destination for so many migrants? Economics plays a significant role. Housing is less expensive in the valley than in the coastal areas, and the cost of living is generally lower. Some of the valley's new residents are equity migrants, cashing out their more expensive homes in coastal areas and moving to less expensive valley communities. Others are attracted to the high-skill job market in the Sacramento metropolitan area, and still others are choosing the Great Central Valley as the first step on their way to full integration into American society.

This unprecedented movement of people into the valley is not without its costs. Air quality, water supplies, roads, and community services are all coming under stress. Given the valley's long history as a major agricultural area, political solutions to these problems may be even more challenging than they now appear. Intractable conflicts may arise between the political interests of a growing urban population and the commercial interests of a huge agricultural economy. The tensions are already there, and we will likely see more conflicts as the growth continues.

For some readers, then, the authors' expert analysis will point to an important question: How much state-level and regional leadership will be required to manage the valley's development over the next decades? Certainly the valley's ecological vulnerability suggests that its growth should be accompanied by a deeper understanding of the environmental consequences. To take one (hotly debated) example, there is no greater supply of water in California than the millions of acre-feet that flow through the valley, but this very same water is in ever greater demand throughout the state. Managing this resource alone will take the skills of the state's best policy planners. If they need the data to make their case on this or other matters, this report provides ample evidence of the challenges before all of us.

David W. Lyon
President and CEO
Public Policy Institute of California

Summary

The Central Valley is literally and figuratively at a crossroads. Adjacent to and between the state's two largest population centers, the Central Valley has entered a period of tremendous population growth. Much of California's Central Valley is changing from a rural agricultural area to the state's newest setting for large-scale urban growth. That growth has already transformed large parts of the valley and will change even more of it in the future. The latest population projections from the California Department of Finance suggest that the San Joaquin Valley and the Sacramento Metro region will be the state's fastest-growing regions. Much of that growth is fueled by migration, both domestic and international. Migration and consequent population growth will lead to many environmental, economic, social, and even political challenges.

Despite their importance, little is known about recent migration flows and their effects on the region. In this report, we examine the effects that migration has had on the valley. How important is migration to population growth in the valley? How has it changed the socioeconomic profile of the valley's population? Why are so many people moving to the valley, and why do some leave? In particular, is the valley losing its best educated adults and most promising high school graduates to other parts of California and the United States? What are the challenges faced by the valley as a result of these migration flows and patterns, and how has it responded to these challenges? To answer these questions, we document trends in both domestic and international migration to and from the valley with special attention to the education levels and other socioeconomic characteristics of the migrants. We also investigate the determinants of migration flows and describe the economic and social challenges that migration presents. Four subregions of the valley are included in the analysis: the Upper Sacramento Valley, the Sacramento Metropolitan area, the North San Joaquin Valley, and the South San Joaquin Valley (see Figure S.1).

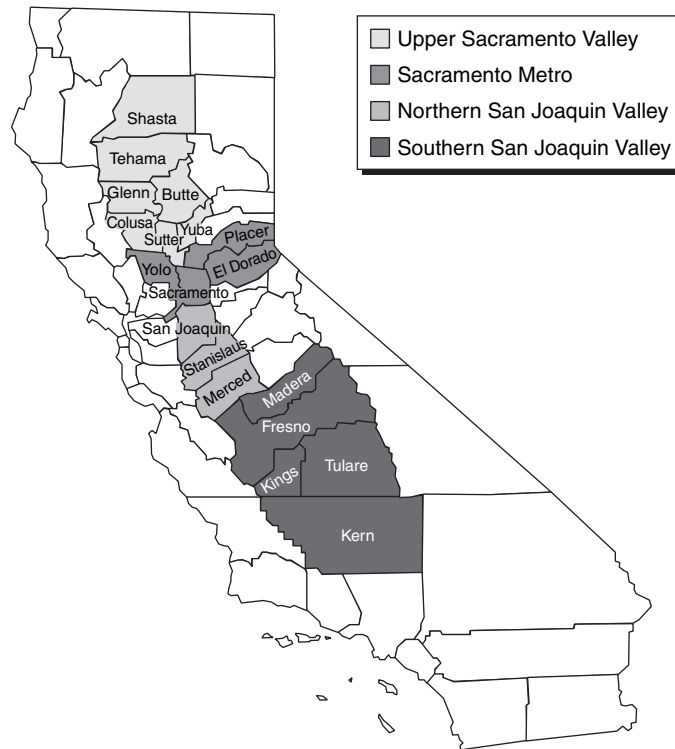


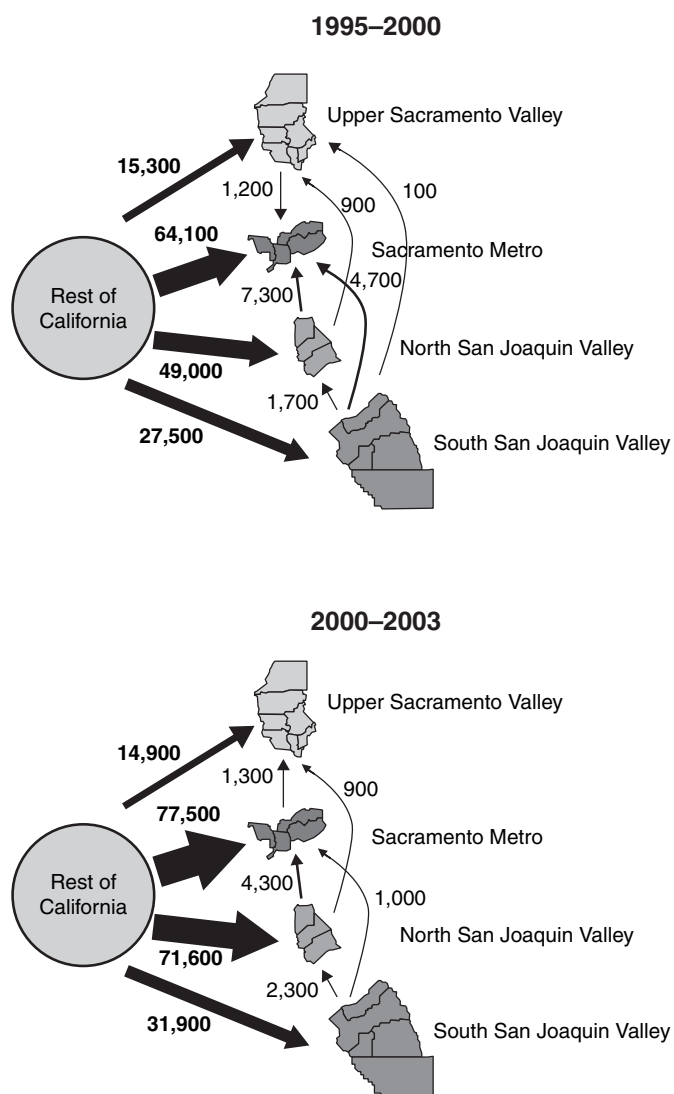
Figure S.1—The Central Valley and Its Subregions

We find that migration is the most important driver of population growth in the valley. Most of the valley’s residents were not born in California, let alone in the valley. Since 1970, well over half (58%) of the valley’s population growth can be directly attributed to migration. Natural increase—the excess of births over deaths—accounts for the remainder. Although migration to the valley slowed during the 1990s, the early part of this decade has seen near record levels of migration. Indeed, migrants and their valley-born children are driving the valley’s rapid population growth.

Another key finding is that migration flows cannot be easily characterized by any one statistic. Those flows vary temporally, geographically, and according to the type of migration. The most recent flows to the Central Valley are diverse, with large international flows and

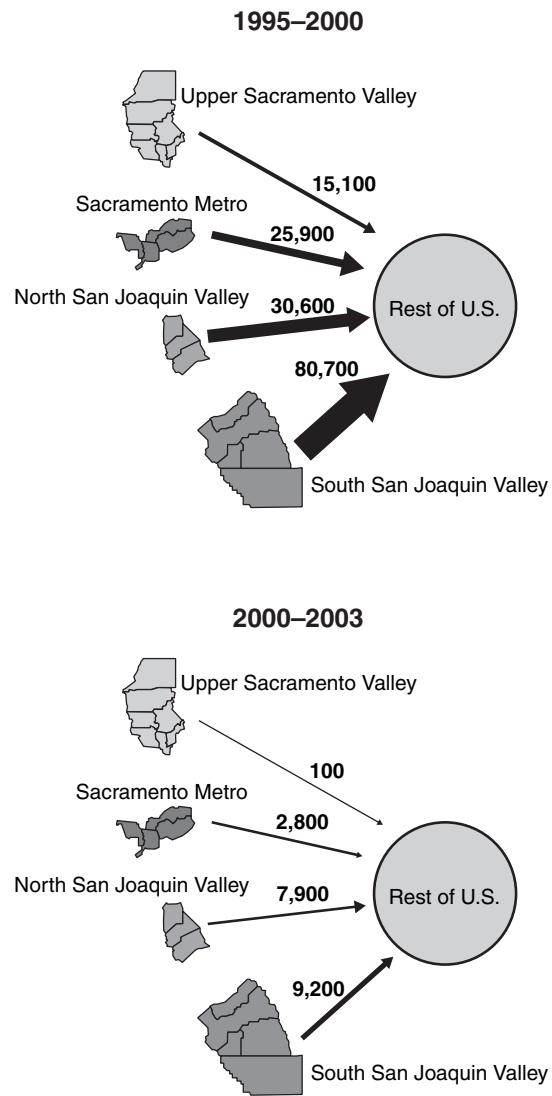
large numbers arriving from other parts of California. During the 1990s, the valley lost migrants to other parts of the United States; more recently, the number leaving the valley for other states is about the same as the number arriving to the valley from those states. Migration flows also vary across the valley's subregions. All of the valley subregions receive substantially more migrants from other parts of California than they send to the rest of the state. Thus, net flows of migrants to the valley's subregions are positive and substantial (Figure S.2). The flows to Sacramento Metro and the North San Joaquin Valley are particularly large. Within the valley, Sacramento Metro serves as a gathering place, although net flows between valley subregions are relatively modest. Between 1995 and 2000, when the valley received large flows of migrants from the rest of the state, it sent out almost as many migrants to the rest of the United States (Figure S.3). Again, important subregional differences are found, with the South San Joaquin Valley experiencing the greatest losses to the rest of the United States, and Sacramento Metro and the North San Joaquin Valley experiencing much smaller losses. The most recent data for the early 2000s indicate that the net losses to the rest of the country have largely abated, and flows from the rest of California have increased. International migration to the valley has been almost as great as migration from other parts of the state. International flows have been greatest for the South San Joaquin Valley, although flows to Sacramento Metro and the North San Joaquin Valley have also been sizable (Figure S.4).

The demographic and socioeconomic characteristics of the valley's newest residents also vary with time, geography, and type of flow. Education levels of the migrants vary across the valley's subregions and according to the type of migration flow (domestic or international). International migrants to the valley tend to have low levels of education, although substantial proportions of international migrants to Sacramento Metro are college graduates. International and domestic migration flows add substantial numbers of college graduates to Sacramento Metro but lead to a "brain drain" from the South San Joaquin Valley (Figure S.5). Low incomes and high poverty rates among international immigrants reflect their generally low levels of educational attainment. Migrants both to and from the valley tend to be young, but those who leave the



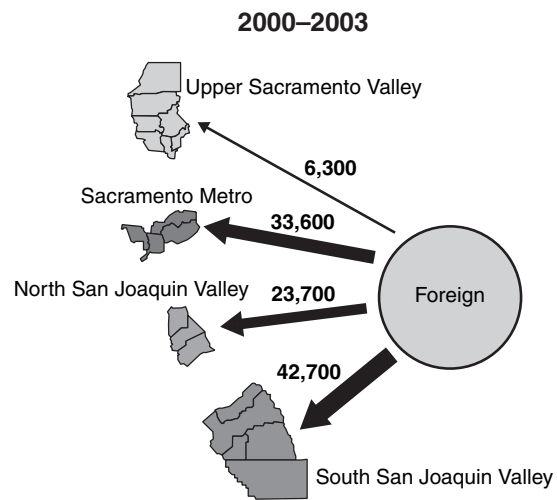
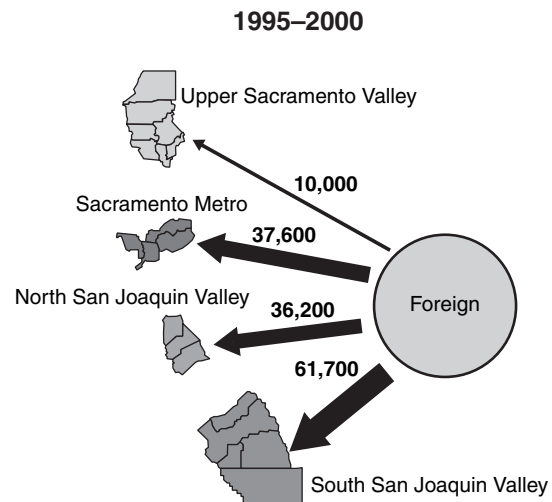
SOURCES: Authors' tabulations of 2000 census data for 1995–2000 flows, and IRS tax return data (exemptions) for 2000–2003 flows.

Figure S.2—Net Migration Flows Within California



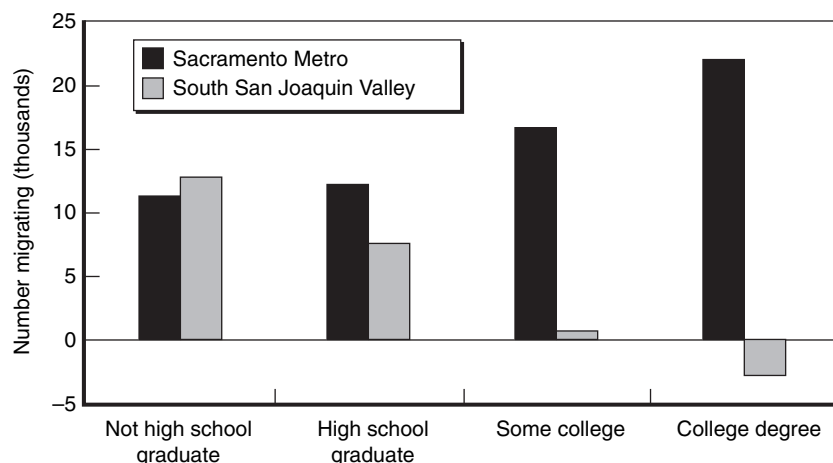
SOURCES: Authors' tabulations of 2000 census data for 1995–2000 flows, and IRS tax return data (exemptions) for 2000–2003 flows.

Figure S.3—Net Migration Flows Between Valley Subregions and the Rest of the United States



SOURCE: Authors' tabulations of U.S. Census Bureau estimates.

Figure S.4—Net Migration Flows Between Valley Subregions and Foreign Countries



SOURCE: Authors' tabulations of 2000 census data.

Figure S.5—Gross Foreign and Net Domestic Migration, by Educational Attainment, 1995–2000

valley tend to be younger than those moving to the valley from other locations in California and the United States. A substantial share of migrants to the Upper Sacramento Valley are older adults and retirees. International migrants to the valley are concentrated in the same very young ages as those who are most likely to leave domestically. Many of the valley's newest residents are families: Compared to the valley's out-migrants, they are more likely to be married and have children. The migrants are ethnically diverse, and the net flows to the valley add substantially to the region's Latino and African American populations.

Why are so many people moving to the valley, and why do some leave? Economic reasons predominate. Most of the valley's new residents have come to the valley to find housing or jobs. Throughout the valley, housing prices are substantially lower than in coastal California, leading many coastal residents to move to the valley. Some migrants, especially those to the North San Joaquin Valley, take advantage of the lower housing prices by moving to the valley but continuing to commute to their jobs in coastal metropolitan areas. Others move to the valley for its housing and are able to find jobs in the

valley. Sacramento Metro has one of the strongest regional economies in the state, with historically strong job growth and low unemployment rates. Despite high unemployment rates, job growth has been relatively strong in the rest of the valley. Still, many of those who leave the valley do so because it lacks the employment and educational opportunities they seek. Again, Sacramento Metro stands out from the rest of the valley in providing relatively abundant higher education opportunities and high-wage jobs. In the San Joaquin Valley, many high school students bound for college leave the valley. The Upper Sacramento Valley attracts substantial numbers of college students, but they tend to leave the region once they finish their college education. International migrants come to the valley for jobs and for family reasons.

These findings have important implications for the valley's economic development efforts and the delivery of social services. The Sacramento Metro region has benefited from migration patterns—attracting highly skilled and well-paid workers who both live and work in the region. This region's attractiveness to such workers both reflects and contributes to its fast-growing and diversifying economy. The rest of the valley has not fared so well. The Upper Sacramento Valley, for example, has not retained its college graduates and instead is a magnet for older retirees. The North San Joaquin Valley has attracted tremendous numbers of new residents, but many do not work in the region and instead commute to the Bay Area. The most dire conditions are found in the South San Joaquin Valley, where its residents' low levels of educational attainment and other adverse socioeconomic outcomes can be traced to its industrial composition and the consequent migration flows.

Each region has pursued its own strategies for addressing these disparate challenges. The Upper Sacramento Valley, faced with an aging population and an exodus of college-educated young people, is responding with traditional economic development strategies by offering financing and tax breaks to small businesses that are considering relocation to the area. At the same time, the area is engaging in large construction projects for residential and entertainment purposes. In contrast, the Sacramento Metro region's robust economic growth has led to concerns about managing population growth, and regional efforts are

now focusing on such quality-of-life concerns as urban planning and ameliorating the area's air quality problems.

The North San Joaquin Valley receives an economically diverse group of immigrants from the rest of California and abroad. In an attempt to increase the income earned by unskilled wage laborers, regional officials have focused on fostering value-added processing in agricultural industries and attracting new service industry firms. Simultaneously, these officials are trying to provide local employment for the high-wage earners residing in the area and currently commuting to Bay Area jobs. Aside from the economic advantages of turning these commuters into local workers, this strategy may help solve other regional problems, such as traffic congestion and a perceived lack of community cohesion.

The South San Joaquin Valley's high incidence of poverty among immigrants, generally low levels of education, and limited English skills present a challenge for the region's social service providers, particularly in health care and education. Economic development efforts focus heavily on attachment to the key industry—agriculture. Attempts to vertically integrate the industry—through control of factor inputs, harvest technologies, and postharvest processing—figure prominently in this strategy. Call and distribution centers, attracted to the region by the low cost of doing business, are another important part of job growth efforts.

Because migration flows are particular to each subregion, these different subregional approaches to policy issues and challenges make sense. The underlying forces that drive migration vary substantially across the valley's subregions. Thus, the characteristics of the migrants and the implications for public policy also differ. The challenges—economic, social, and educational—are greatest in the San Joaquin Valley and the Upper Sacramento Valley. Those challenges are not necessarily created by the migrants—although the migration patterns do add to such challenges—but instead reflect those regions' unique economies and histories.

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1. Introduction

The history of the Central Valley is defined in large part by its migration streams. From the Gold Rush to the Dust Bowl migration to the large influxes of immigrants today, the valley's migration patterns have swelled its population and transformed its character. Indeed, it is primarily migration (rather than natural increase—that is, the excess of births over deaths) that has determined both the size and characteristics of the population of the Central Valley. Despite the importance of these migrations, little is known about recent flows into and out of the Central Valley and their social and economic consequences. Data from the 1980s, for example, suggest that highly educated people were leaving the valley and that poorly educated immigrants were entering, but researchers have paid little systematic attention to the relationship between migration flows and the relatively low levels of educational attainment of the valley's residents and other adverse socioeconomic outcomes.

The effects of migration are felt over the long run. Annual flows of migrants are small in comparison with the number of nonmovers. Only about one of every 18 Americans moves to a new county each year, and fewer still move between states (about one in 36). Over the long run, however, migration has a strong cumulative effect on populations. In California, for example, over half of the state's current residents were not born in the state.

Migration is not the sole domain of any particular research discipline and is frequently studied by economists, sociologists, anthropologists, geographers, legal experts, historians, and demographers. Those who attempt to explain human mobility use a number of different approaches. Geographers tend to focus on place and geographic movement, economists often build empirical models to test economic theories of migration decisions, sociologists are more likely to conduct field surveys and emphasize social networks, and it is generally

demographers who develop immigrant population and flow estimates. Migration studies range from broad sweeping theoretical arguments (e.g., McNeill, 1984) to descriptive discussions of qualitative field work (e.g., Smith and Tarallo, 1993). Domestic migration is generally theorized as the result of a cost-benefit decisionmaking process. According to neoclassical economists, for example, migration is a “simple sum of individual cost-benefit decisions undertaken to maximize expected income” (Massey et al., 1994, p. 701). The failure of neoclassical theories to explain differentials in migration rates and to incorporate the well-known importance of social networks has led to models that seek to incorporate social, structural, and economic variables, focusing on household decisionmaking rather than individual decisions. In the new economics of migration, for example, migration decisions are made by households as a way to optimize household income.

Although there is a rich body of research on migration, there has been little research on migration to and from California’s Central Valley. In this report, we examine migration and its consequences for that region. Our goal is to help policymakers and others understand the fundamental forces that are driving the valley’s extraordinary population growth and to recognize some of the challenges posed by the migration flows that produce this growth.

Outline of the Report

In Chapter 2, we provide an overview of the population and economy of the valley. We discuss the area’s key demographic trends and socioeconomic measures of the valley’s population. We note the tremendous population growth rates of the past and projections for strong growth in the future. We also describe the increasing diversity of the region’s population.

In Chapter 3, we examine migration flows in detail, providing the latest information available on numbers and characteristics of migrants. We document trends in both domestic and international migration to and from the valley and its subregions, paying special attention to the education levels and other socioeconomic characteristics of migrants.

In Chapter 4, we seek to understand why people move into and out of the Central Valley. We investigate the valley’s migration patterns,

paying particular attention to economic conditions, educational opportunities, and self-reported reasons for moving. Because most migration to and from California and its subregions occurs among young adults, college and job opportunities are key considerations in both the decision to move and the choice of destination. We compare economic conditions in the Central Valley and its subregions with conditions in the primary sending and destination regions of migrants. The conditions include housing costs, job growth, wages, unemployment, and industrial and occupational structures. For California high school graduates who go on to attend public colleges in California, we assess the degree to which those students leave or enter the valley to attend college. The report provides a baseline for future work that would examine the effect of the University of California (UC) Merced, which is expecting its first class of students in fall 2005. We also consider the role of social networks, noting that for some migration streams, the desire to live with or near other family members is the primary motivation for migration.

In Chapter 5, the report highlights unique challenges faced by the various subregions of the valley. Those challenges include increasing concentrations of poverty, as immigrants settle in certain areas and as poor families arrive from expensive coastal regions, and the loss of college graduates. The Great Valley Center and others have noted the importance of economic development in diversifying and enriching occupational opportunities in the valley. We note some of those efforts as well as implications of the migration flows for social service providers.

Data and Methods

To estimate migration and evaluate its consequences for the Central Valley, we use several approaches. Primarily, we rely on numerous datasets to provide information on migrants and their origins and destinations. In addition to using descriptive statistics generated from such data, we employ regression models to help identify factors most strongly associated with migration and we also use qualitative information. In addition to reviewing other work and published reports on the valley, we interviewed local officials and other valley leaders to gain their insight into how the migration patterns we observed have affected their work and policies. Finally, to consider responses and

attitudes toward population growth, we developed a comprehensive list of local measures and city council attitudes toward growth by updating information from several surveys of local officials. Appendix A contains details of the data and methods we used.

For our discussion in this report, we divide the Central Valley into the following four subregions: the Upper Sacramento Valley (Shasta, Tehama, Glenn, Colusa, Sutter, Yuba, and Butte Counties); Sacramento Metro (Sacramento, Yolo, Placer, and El Dorado Counties); the North San Joaquin Valley (San Joaquin, Stanislaus, and Merced Counties); and the South San Joaquin Valley (Madera, Fresno, Kings, Tulare, and Kern Counties; see Figure 1.1). Other research has shown sharp differences among the valley's subregions (Hedderston et al., 2004; Danenberg,

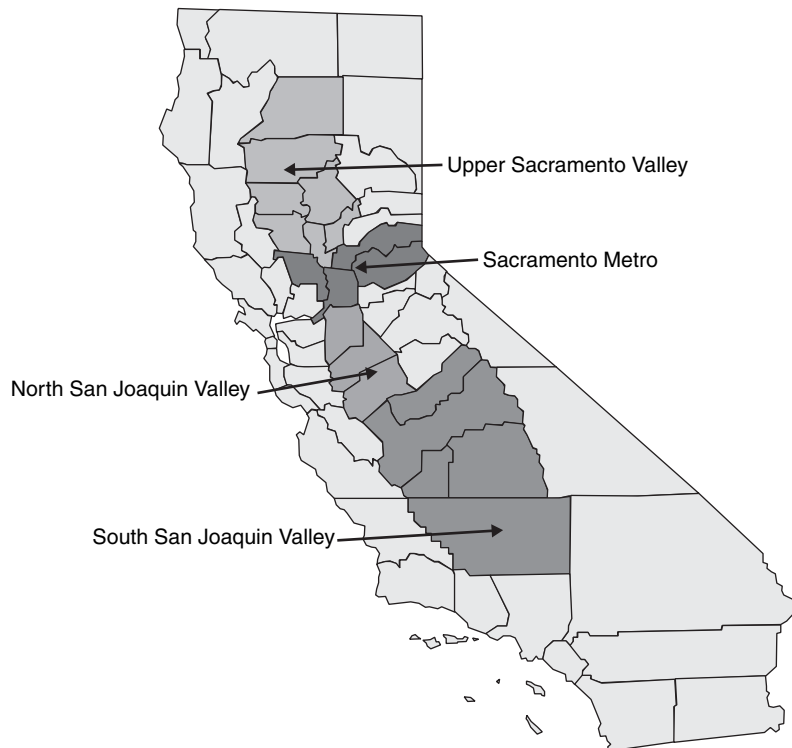


Figure 1.1—The Central Valley and Its Subregions

Jepsen, and Cerdán, 2002). We divide the San Joaquin Valley into two parts because spillover from the Bay Area has had an important effect on migration patterns in the northern part of the San Joaquin Valley.

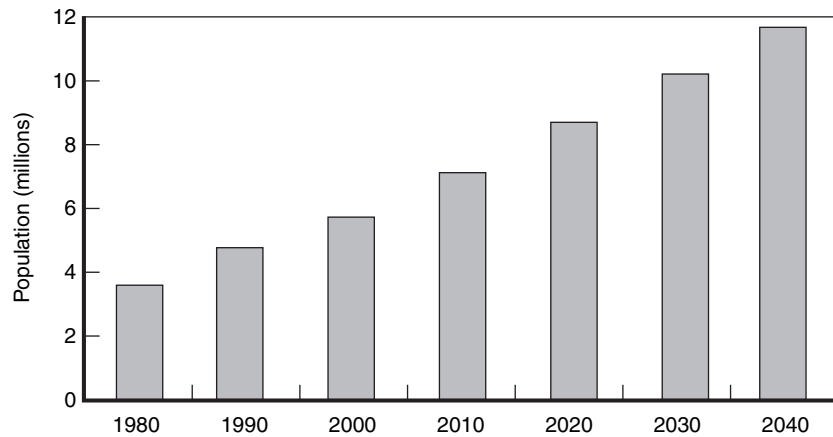
2. Population and Economic Context

The population and economy of a region are key to understanding migration flows and patterns. Places with large populations tend to have larger migration flows than places with small populations, and regions with robust economies will experience very different migration patterns than regions with declining economies. In this chapter, we provide an overview of the valley's population and economy. We show that although all of the valley's subregions have experienced rapid population growth, the underlying demographic and economic forces that shape migration are very different across the valley's subregions.

The Central Valley is one of the fastest-growing regions in California. Today, it is home to over six million people. Its population has more than doubled in the last 30 years, and projections for the future suggest that it will become the fastest-growing region of the state. Between 2000 and 2040, the valley's population is expected to double again, reaching almost 12 million people (Figure 2.1). By developed world standards, such growth is phenomenal. Not only are growth rates much higher in the valley than in the rest of the United States, the valley has experienced a faster rate of growth than many less-developed countries, including Mexico. Moreover, future population growth rates are expected to be dramatically higher in the Central Valley than in Mexico.¹

Population is not distributed equally across the valley. The Upper Sacramento Valley is a large region with a relatively small population—645,000 in January 2004. With a population of 2.0 million, the mostly urban Sacramento Metro region is one of the nation's largest

¹The U.S. Census Bureau projects that between 2000 and 2040, Mexico's population will increase 43 percent; the California Department of Finance projects that over the same time period, the Central Valley's population will increase 104 percent.



SOURCE: Authors' tabulations of California Department of Finance estimates and projections.

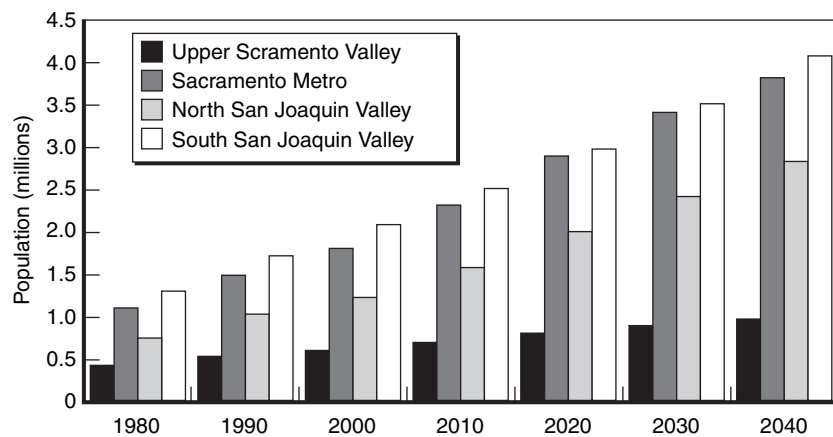
Figure 2.1—Central Valley Population, by Decade, 1980–2040

metropolitan areas. The San Joaquin Valley is a mix of urban areas with substantial populations as well as small towns and rural areas. The North San Joaquin Valley is home to 1.4 million people, and the South San Joaquin Valley is home to 2.3 million.

Strong population growth is shared by all of the valley's subregions. In fact, California Department of Finance projections indicate that two valley subregions will surpass the Inland Empire as the fastest-growing regions of the state. Especially remarkable is growth in the North San Joaquin Valley. San Joaquin County is projected to be the fastest-growing county in California over the next few decades, with Merced County projected to be the third-fastest-growing county. Both counties are expected to almost triple their populations between 2000 and 2050. Sacramento Metro has been and will remain the fastest-growing large metropolitan area in the state and one of the fastest growing in the nation. Suburban Placer County is projected to experience the second-fastest growth rates of any California county. By 2040, Sacramento Metro's population is projected to reach almost four million. Even the

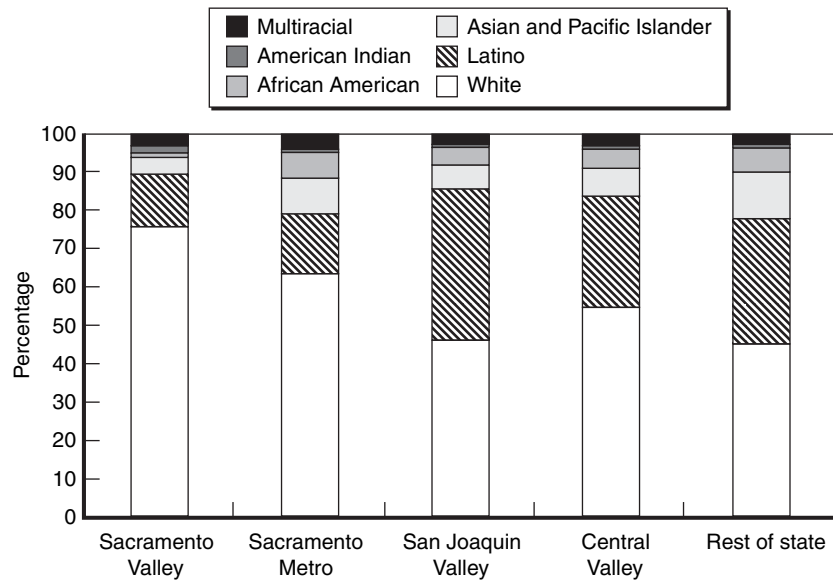
sparsely populated Upper Sacramento Valley is expected to almost double its population over the next 40 years (Figure 2.2).

The increasing diversity of the valley's population has been as remarkable as the valley's overall population growth. As recently as 1980, three of every four valley residents was non-Hispanic white. Within the next year or so, no racial or ethnic group will constitute a majority of the valley's population. Growth has been especially strong among Latino and Asian populations, with the Latino population increasing fivefold and the Asian population increasing over fourfold between 1970 and 2000. The diversity of the valley's population is not shared equally across the subregions (Figure 2.3). The Upper Sacramento Valley remains largely non-Hispanic white, with an ethnic composition that is similar to that of California 30 years ago. In contrast, in the San Joaquin Valley no racial or ethnic group constitutes a majority of the population. The Sacramento Metro region is a mix of homogeneity and diversity. Some of its suburban areas, including El Dorado County, are among the least diverse in California. In contrast, the city of Sacramento is one of the most diverse cities in the state and is



SOURCE: Authors' tabulations of California Department of Finance estimates and projections.

Figure 2.2—Population Projections for Valley Subregions, 1980–2040



SOURCE: Authors' tabulations of 2000 census data.

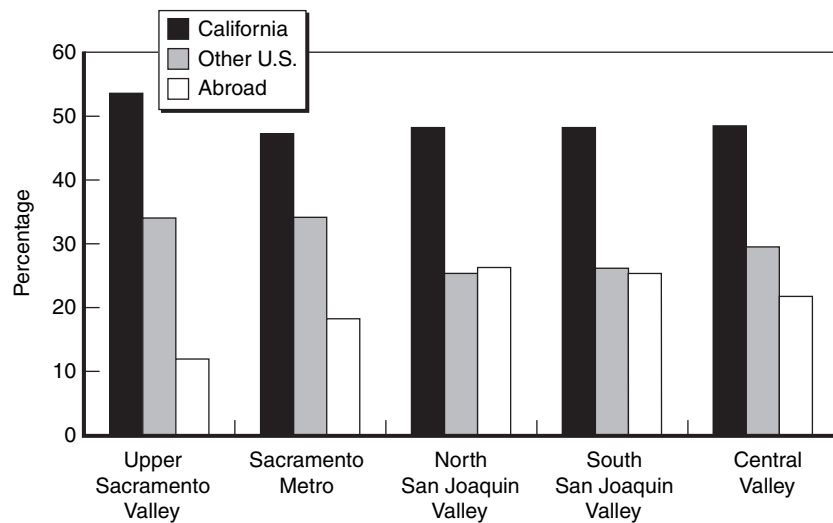
Figure 2.3—Percentage Distribution of Ethnic Groups in the Central Valley and Its Subregions, 2000

one of the least-segregated cities in the nation (Sandoval, Johnson, and Tafoya, 2002). Sacramento County has one of the highest proportions of multiracial residents of any California county.

Much of the valley's population growth has been fueled by migration—both domestic and international. Since 1970, over half (58 %) of the valley's population increase can be directly attributed to net migration gains (more people moving in than out), with the remainder resulting from natural increase. Over the past several decades, migration directly accounted for 73 percent of population gains in the Upper Sacramento Valley, 68 percent in the Sacramento Metro region, 58 percent in the North San Joaquin Valley, and 47 percent in the South San Joaquin Valley.²

²Authors' tabulations of California Department of Finance data.

Over half of the valley's adults were not born in California (Figure 2.4). In the Upper Sacramento Valley and Sacramento Metro region, natives of other states make up a larger share than do those born abroad, whereas in the San Joaquin Valley, immigrants and natives of other states make up about the same share. Distinctive subregion "personalities" might be partly understood by reviewing the leading places of birth of valley residents. Migrants to a region bring with them their own customs, including political attitudes. In the San Joaquin Valley, Dust Bowl states—Texas, Oklahoma, and Arkansas—are either the most common (Texas) or most overrepresented (in comparison with domestic migrants to all of California). The influence of these "Okies" on the San Joaquin Valley's culture, including music and language, has been well documented (see, for example, Haslam, 1994, 1999; Gregory, 1989). In the Sacramento Metro region, Illinois is the leading state of origin after Texas. And in the Upper Sacramento Valley, most residents who were not born in California were born in Oregon. In contrast, the Bay Area has received most of its transplants from the Northeast, particularly New York; and although New York is also the leading state of origin of U.S.-



SOURCE: Authors' tabulations of 2000 Census data.

Figure 2.4—Percentage Distribution of Places of Birth of Valley Adults, 2000

born non-Californians in Los Angeles County, Texas is the leader for Orange County.

The countries of origin of international migrants also vary across valley subregions. In most of the valley, Mexican immigrants make up a majority of the foreign-born (Table 2.1). The share of Mexican immigrants to the valley is greater than in the rest of the state.³ Mexico

Table 2.1
Percentage Distribution of Immigrants, by Country of Origin

Upper Sacramento Valley		Sacramento Metro	
Mexico	54.4	Mexico	28.7
India	9.3	Philippines	7.1
Laos	6.7	Vietnam	6.7
Thailand	4.1	China	6.3
Germany	2.5	Laos	5.1
United Kingdom	2.3	Ukraine	4.7
Philippines	2.2	India	3.5
China	1.5	Russia	2.8
Japan	1.1	Thailand	2.2
Pakistan	0.9	United Kingdom	2.2
All other countries	15.0	All other countries	30.7
Total	59,600	Total	260,100
North San Joaquin Valley		South San Joaquin Valley	
Mexico	59.0	Mexico	73.7
Philippines	6.5	Laos	4.1
Laos	3.8	Philippines	4.1
Portugal	3.3	India	2.1
India	3.0	Thailand	1.7
Cambodia	2.8	China	0.9
Thailand	2.3	Portugal	0.9
Vietnam	2.2	Cambodia	0.6
China	1.7	Vietnam	0.6
Iran	1.2	Germany	0.6
All other countries	14.0	All other countries	10.7
Total	243,600	Total	409,300

SOURCE: Authors' tabulations of 2000 census data.

NOTE: Percentages may not sum to 100 because of rounding.

³Outside the Central Valley, immigrants from Mexico constitute 43 percent of all immigrants in the state.

is especially dominant among countries of origin of immigrants to the South San Joaquin Valley, accounting for three of every four immigrants to that region. In contrast, immigrants from Mexico constitute only one in every four foreign-born residents of Sacramento Metro. Recent immigrants from Eastern Europe and Asia are more common in the Sacramento Metro than elsewhere in the valley. Indeed, the Sacramento Metro region has the most evenly distributed foreign-born population in the state, with substantial shares from Latin America, Asia, and Europe.

With the exception of the Sacramento Metro region, with its relatively high wages and low unemployment rates, strong population growth in the rest of the valley seems inexplicable at first glance. The San Joaquin Valley and the Upper Sacramento Valley have high unemployment rates and high poverty rates. Other regions of the country with agricultural or resource-based economies and high poverty rates, such as the Upper Plains and Appalachia, are experiencing population declines. Indeed, we need look no further than to other parts of California to see places with very slow population growth in response to poor economic conditions. The far north coast and northern mountain counties—resource-based economies once primarily dependent on timber—are the slowest-growing counties in the state, with outright population declines in Trinity, Modoc, and Inyo Counties during the 1990s. An understanding of the various migration flows to the valley helps to explain the rapid population growth in the face of economic adversity that prevails in much of the valley. As discussed below, the Upper Sacramento Valley experiences substantial flows of older migrants—retirees who are not dependent on local jobs—and college students. The San Joaquin Valley attracts large numbers of international migrants, who find even the relatively limited economic opportunities of the San Joaquin Valley to be better than those of their home countries. And the relatively low housing prices of the northern portion of the San Joaquin Valley have attracted many commuters who do not depend on the region for jobs.

Levels of educational attainment reflect the industrial and occupational structure of the valley's subregions. Agriculture dominates in the South San Joaquin Valley. High-wage sectors, including

government employment, are more important in Sacramento Metro (Table 2.2). Thus, migrants to the South San Joaquin Valley tend to be much less educated than migrants to the Sacramento Metro region.

The industrial structure of the valley leads to substantial seasonality in employment. In the subregions most heavily dependent on agriculture, unemployment rates are high. In 2003, every county in the South San Joaquin Valley had unemployment rates at least twice as high as those in the rest of the state (Table 2.3). Tulare County's unemployment rate was almost 16 percent. Unemployment rates were high in the North San Joaquin Valley and Upper Sacramento

Table 2.2
Percentage Distribution of Employment and Median Wages in the Central Valley and Its Subregions, by Industry, 2002

Employment	Upper Sacramento Valley	Sacramento Metro	North San Joaquin Valley	South San Joaquin Valley	Central Valley Total	Median Weekly Wage (\$)
Government (includes education)	23	27	17	22	23	865
Trade, transportation, and utilities	19	17	20	16	17	538
Educational and health services	14	9	11	9	10	577
Professional and business services	7	12	8	8	9	538
Agriculture	6	1	9	17	9	400
Leisure and hospitality	9	9	8	7	8	258
Manufacturing	6	6	12	7	7	660
Natural resources, mining, and construction	6	7	7	6	7	576
Financial activities	5	6	4	4	5	673
Other services	4	3	3	3	3	596
Information	1	3	1	1	2	615
Total employment	100	100	100	100	100	

SOURCE: Authors' tabulations of California Employment Development Department data.

NOTE: Median wage figures are based on the March 2003 *Current Population Survey* (CPS) and are restricted to Central Valley residents.

Table 2.3

**Percentage Distribution of Unemployment, Poverty, and Educational
Attainment in Central Valley Counties**

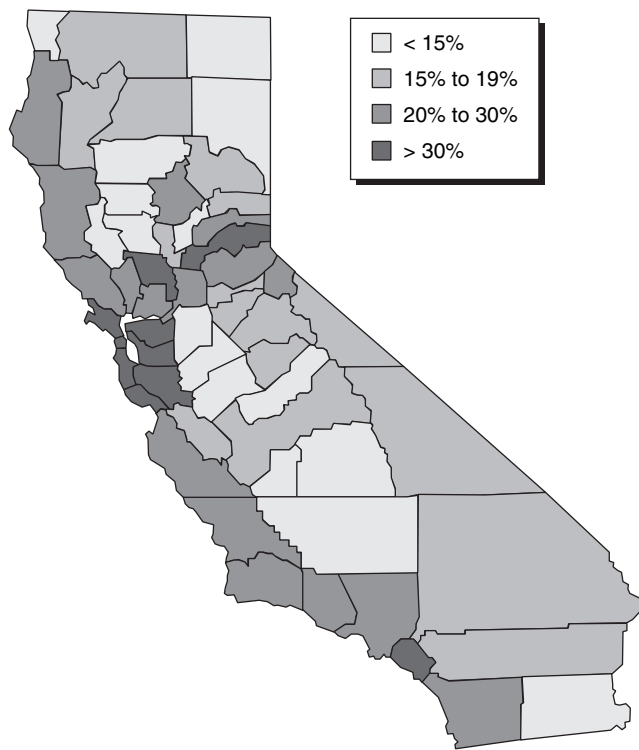
	Unemployment Rate	Poverty Rate	Not High School Graduates	College Graduates
Butte	7.8	19.8	17.7	21.8
Colusa	19.0	16.1	36.0	10.6
Glenn	12.7	18.1	31.5	10.7
Shasta	7.8	15.4	16.7	16.6
Sutter	13.6	15.5	27.0	15.3
Tehama	7.2	17.3	24.3	11.3
Yuba	14.1	20.8	28.2	10.3
Upper Sacramento Valley total	9.6	17.7	21.3	16.7
El Dorado	5.3	7.1	10.9	26.5
Placer	4.7	5.8	9.5	30.3
Sacramento	5.6	14.1	16.7	24.8
Yolo	5.3	18.4	20.2	34.1
Sacramento Metro total	5.4	12.7	15.4	26.5
Merced	14.8	21.7	36.2	11.0
San Joaquin	10.1	17.7	28.8	14.5
Stanislaus	11.5	16.0	29.6	14.1
North San Joaquin Valley total	11.4	17.8	30.3	13.8
Fresno	14.2	22.9	32.5	17.5
Kern	12.3	20.8	31.5	13.5
Kings	14.6	19.5	31.2	10.4
Madera	12.6	21.4	34.6	12.0
Tulare	15.5	23.9	38.3	11.5
South San Joaquin Valley total	13.8	22.1	33.2	14.4
Central Valley total	10.0	17.7	25.4	18.6
Rest of state	6.1	13.5	22.8	28.2
State total	6.7	14.2	23.2	26.6

SOURCES: Unemployment rates are 2003 annual averages taken from California Employment Development Department data, August 2004. Poverty rates and educational attainment are from the 2000 census.

NOTE: Educational attainment is determined for adults ages 25 and over.

Valley as well. Colusa County had Depression-era unemployment rates, with nearly one in five workers looking for a job. In contrast, unemployment rates in every county of the Sacramento Metro region were below the state average.

Partly because of the types of jobs offered in the Central Valley, the region's residents have generally low levels of educational attainment, although the levels vary widely across the subregions (Table 2.3 and Figure 2.5). The best-educated valley residents are in the Sacramento Metro region, where levels of educational attainment more closely resemble those of the Bay Area than those in the rest of the valley. With the exception of Butte County, the Upper Sacramento Valley has relatively few college graduates, although the percentage of adults who have graduated from high school is about the same as in the state as a



SOURCE: Authors' tabulations of 2000 census data for adults ages 25 and over.

Figure 2.5—Percentage Distribution of College Graduates, 2000

whole.⁴ The San Joaquin Valley has the lowest proportion of college graduates and the highest proportion of adults who have not completed high school of any region in the state. These low levels of educational attainment are shared by residents of both the South San Joaquin Valley and the North San Joaquin Valley.

A consequence of these low levels of education, high unemployment rates, and low-wage jobs is a high rate of poverty. Poverty rates are very high in the San Joaquin Valley, especially the South San Joaquin Valley (Table 2.3 and Figure 2.6). Indeed, the South San Joaquin Valley has the highest rates of poverty of any region in the state. Moreover, these

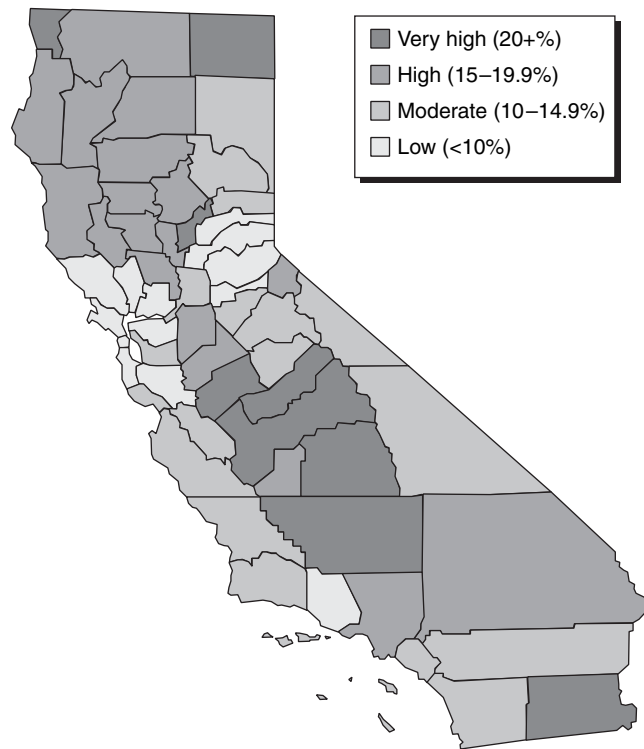


Figure 2.6—Poverty Rates, by County, 1999

⁴Fewer of the Upper Sacramento Valley's high school graduates go on to college than in the rest of the state.

high poverty rates were recorded in a period of strong economic growth.⁵ In some communities in the valley, over half of the children live in poverty. Of the 13 towns in California with at least 1,000 people in which over half the children lived in poverty in 1999, ten were in the San Joaquin Valley (Table 2.4). Nine of those were in the South San Joaquin Valley. These poverty rates are among the highest in the United States.

Economically successful regions tend to have highly educated populations. Many employers are attracted to regions with a highly educated labor force. A region can develop a highly skilled workforce by attracting well-educated migrants from elsewhere, by retaining its own well-educated residents, and by fostering educational opportunities. Key to attracting and retaining high-skilled workers is attracting and retaining high-skilled jobs. Hence, regions often compete with each other for desirable employers and industries that provide those jobs.

Table 2.4
California's Poorest Communities for Children

Place	County	% of Children in Poverty
South Taft CDP ^a	Kern County	62
London CDP	Tulare County	56
Orange Cove	Fresno County	55
Seven Trees CDP ^b	Santa Clara County	54
Home Garden CDP	Kings County	54
Pixley CDP	Tulare County	53
Kettleman City CDP	Kings County	53
Mecca CDP ^b	Riverside County	52
Kennedy CDP	San Joaquin County	52
Weedpatch CDP	Kern County	52
Cutler CDP	Tulare County	51
Homeland CDP ^b	Riverside County	51
Earlimart CDP	Tulare County	51

SOURCE: Authors' tabulations of 2000 census data.

^aCensus designated place. CDPs are unincorporated towns.

^bDenotes a town not in the Central Valley.

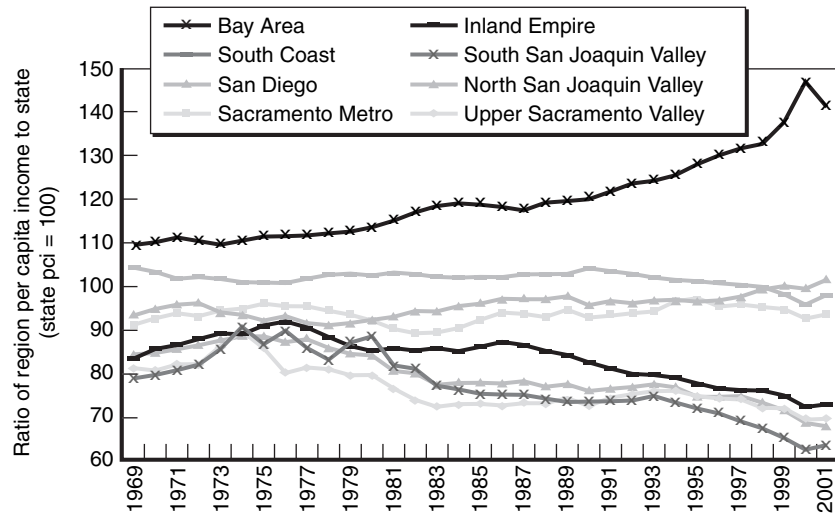
⁵Rates are based on 2000 census data for incomes in 1999.

Poverty in the Central Valley is not limited to small communities. Some of the poorest metropolitan areas in the United States are also in the valley. An examination of per capita incomes in 2001 reveals that among 318 metropolitan areas in the United States, the Sacramento Metro area was the only valley metropolitan area to rank above the median (74th). Redding ranked 216th, Stockton-Lodi 278th, Chico-Paradise 287th, Modesto 288th, Yuba City 296th, Fresno 303rd, Bakersfield 306th, Visalia-Tulare-Porterville 309th, and Merced 313th.⁶ By the same measure, the richest metropolitan area in the United States was San Francisco (with San Jose second). Thus, just two hours away from the richest metropolitan area in the United States is one of the poorest. This juxtaposition of metropolitan areas is without precedent in the United States.

Over the past few decades, too, regional income inequality has widened in California. Overall, per capita incomes in California have increased substantially (from \$22,900 in 1969 to \$32,700 in 2001, adjusted for inflation). However, per capita incomes in the San Joaquin Valley actually fell from 1979 (\$21,100) to 2001 (\$20,100). In 1969, the richest region of California (the Bay Area) had per capita incomes that were 10 percent higher than the state average (Figure 2.7). At the same time, the San Joaquin Valley had per capita incomes that were 20 percent lower than the state average. By 2001, per capita incomes in the South San Joaquin Valley had fallen to levels that were almost 40 percent lower than those for the state as a whole. The Upper Sacramento Valley has not fared well either, with per capita incomes 30 percent below the state average.⁷ Of the valley subregions, only Sacramento Metro has maintained its position relative to the state.

⁶These are authors' tabulations of Bureau of Economic Analysis data. Metropolitan areas follow county boundaries. The valley's ten metropolitan areas are Sacramento (Sacramento, Yolo, Placer, and El Dorado Counties), Redding (Shasta County), Stockton-Lodi (San Joaquin County), Chico-Paradise (Butte County), Modesto (Stanislaus County), Yuba City (Sutter and Yuba Counties), Fresno (Fresno and Madera Counties), Bakersfield (Kern County), Visalia-Tulare-Porterville (Tulare County), and Merced (Merced County).

⁷In real terms, adjusted for inflation, per capita incomes have fallen in the San Joaquin Valley and far north, while rising in the state as a whole (see Johnson, 2002b).



SOURCE: Authors' tabulations of Bureau of Economic Analysis data.
 NOTES: State per capita income is indexed to 100 for each year. Regions are those of Johnson (2002).

Figure 2.7—Regional per Capita Income Relative to the State, 1969–2001

For much of the valley, the underlying context in which we examine and consider migration flows is one of considerable socioeconomic distress. High unemployment rates, high poverty rates, a low-skilled population, and an unfavorable mix of industries combine to present serious challenges for the northern and southern ends of the Central Valley. The dramatic exception is the large and thriving Sacramento Metro region, which by some measures looks more like the Bay Area than it does its regional neighbors in the valley.

3. Migration Flows and Patterns

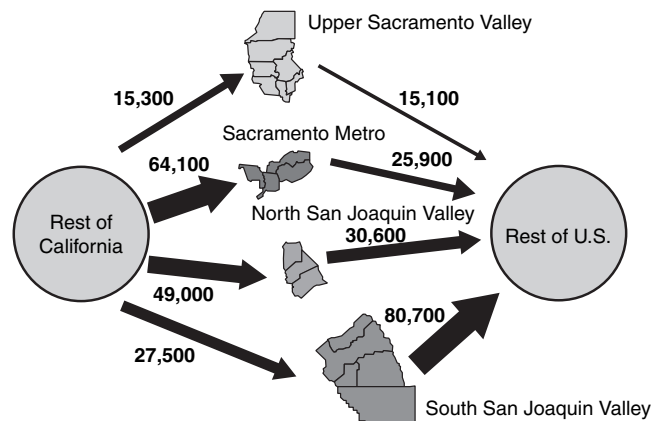
As a geographic event, migration can partly be understood by analyzing origins and destinations. Migration is also an individual and family decision and can be further understood by the characteristics of those choosing to move. In this chapter, we describe migration to and from the Central Valley, providing information on flows, origins and destinations, and characteristics of the migrants. Because the Central Valley's subregions have unique characteristics that set them apart from each other as well as from the rest of the state, migration patterns and flows vary substantially within the valley and between the valley and other places. Likewise, the factors that drive migration—economic, educational, and social, as discussed further in the next chapter—differ dramatically from one part of the valley to the next. Thus, we organize this discussion according to the valley's subregions, beginning in the north with the Upper Sacramento Valley and concluding in the south with the South San Joaquin Valley. First, however, we provide an overview of migration flows for the entire Central Valley.

We categorize migration flows as either foreign, interstate, or intrastate. Foreign migration occurs between the Central Valley and foreign countries.¹ Interstate migration occurs between the valley and other states besides California, and intrastate migration takes place between the valley and other locations in California. Net flows are the differences between the number of migrants to a place less the number of migrants from that place (gross in-migration less gross out-migration). In some instances, we use migration rates to compare migration patterns across areas with very different populations.

¹The census provides detailed information only on foreign migrants to the United States; thus, we are not able to characterize those who emigrate from the United States. One important exception is that the U.S. Census Bureau does develop estimates of net foreign migration (numbers but not characteristics) for each county in the United States. We use those estimates when we consider the net flow of migrants.

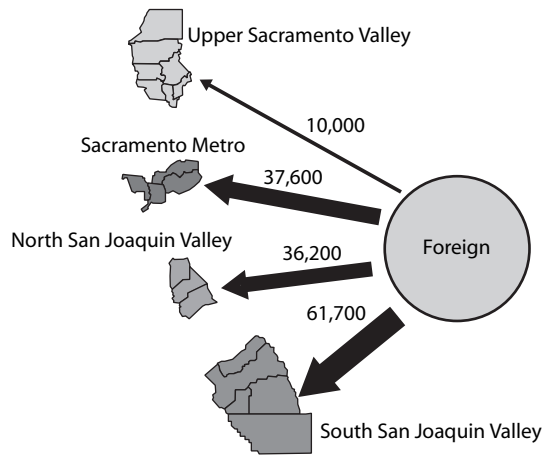
The primary migration patterns to, from, and within the valley for the last half of the 1990s are shown in Figures 3.1 and 3.2. Based on census data and estimates for 1995 through 2000, these net migration flows show a region of tremendous change. Total net flows from the rest of California and from abroad exceeded 300,000 people for the valley from 1995 to 2000. At the same time, net losses to other states totaled more than 150,000 people. Since 2000, Internal Revenue Service (IRS) data suggest that inflows from the rest of the state have accelerated, and outflows to the rest of the United States have dissipated. Net flows to the valley from the rest of the state are now at or near 20-year peaks (perhaps the highest ever; see Figure 3.3). Migration exchanges with the rest of the country are a net wash—that is, the number of out-migrants is roughly equal to the number of in-migrants.

The patterns vary among the subregions. Flows to and from the Upper Sacramento Valley are much smaller than flows to and from the other regions primarily because it has a much smaller population than the other regions. The Sacramento Metro region serves as a gathering place for the valley, receiving net gains from every other valley subregion. Its losses to the rest of the United States are small in comparison with its gains from the rest of California. The North San Joaquin Valley also



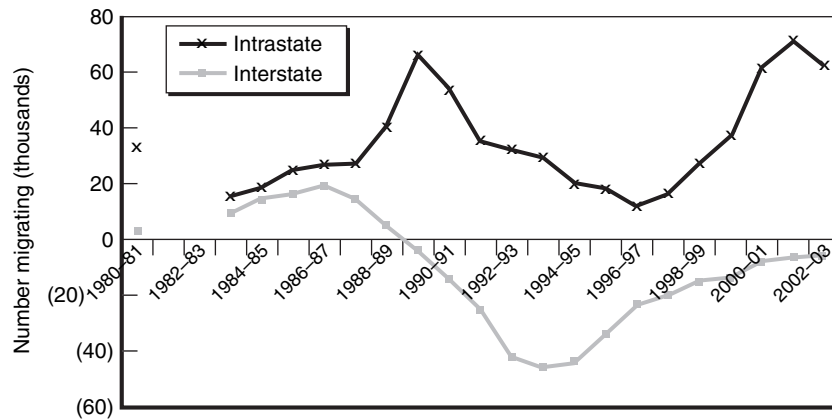
SOURCE: Authors' tabulations of 2000 census data.

Figure 3.1—Net Migration Flows Among Valley Subregions and the Rest of the United States, 1995–2000



SOURCE: Authors' tabulations of U.S. Census Bureau estimates.
 NOTE: These estimates are based on U.S. Census Bureau analysis that include assumptions about emigration but do not include any demographic or socioeconomic detail.

Figure 3.2—Net Migration Flows Among Valley Subregions and Foreign Countries, 1995–2000



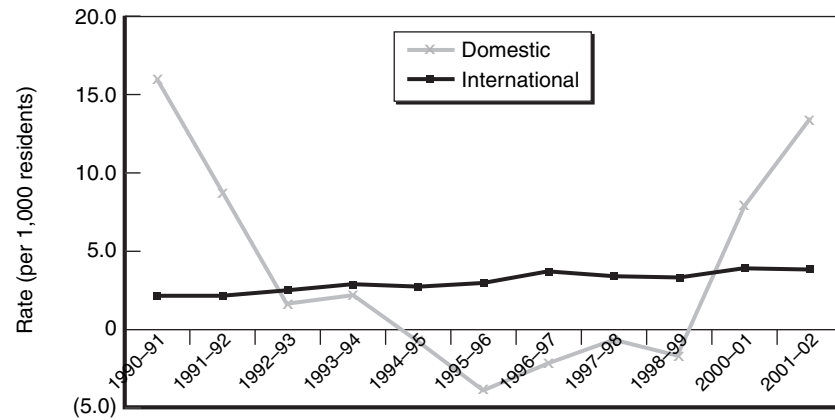
SOURCE: Authors' tabulations of IRS data.
 NOTE: Numbers are based on total exemptions using tax return files for migrants (see Appendix A).

Figure 3.3—Net Domestic Migration Flows to the Valley, 1980–2003

receives large flows from the rest of the state that more than make up for its losses to the rest of the United States. The South San Joaquin Valley, however, lost large numbers of residents to other states; its net outflow was about three times the size of the inflow from the rest of the state. Were it not for large flows of international migrants, the South San Joaquin Valley would have experienced net migration losses between 1995 and 2000.

Upper Sacramento Valley

The sparsely populated Upper Sacramento Valley has historically derived much more growth through domestic migration than from international migration. However, during much of the 1990s, the region gained more from international migration than from domestic migration: Net migration rates were higher for international migration from 1992 to 1999 than for domestic migration (Figure 3.4). This exception to the historical pattern did not result because international migration was so strong, although it did increase and was notable in



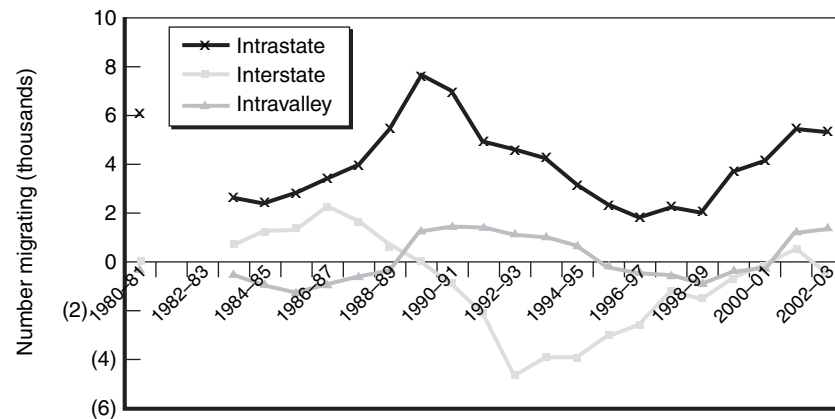
SOURCE: Authors' tabulations of U.S. Census Bureau data.

NOTE: Data are not available for 1999–2000.

Figure 3.4—Domestic and International Net Migration Rates to the Upper Sacramento Valley, 1990–2002

some counties. Rather, it was due to domestic migration losses, which occurred as net out-flows to other states exceeded gains from the rest of California (Figure 3.5).

Four primary migration streams can be identified for the Upper Sacramento Valley: (1) in-migration of college students, (2) out-migration of young adults, (3) in-migration of older adults and retirees, and (4) relatively new flows of international migrants. The socioeconomic characteristics of the migrants are largely determined by their origins and age profiles. Domestic migration streams comprise primarily young adults, although substantial numbers of retirees move to and from the Upper Sacramento Valley as well (Table 3.1). The Upper Sacramento Valley is a net exporter of young adults (between the ages of 25 and 39) to other regions in California and the nation and is a net importer of older adults. Between 1995 and 2000, the region lost about 10,000 adults between the ages of 25 and 39 to other U.S. locations and gained an almost equal number of older adults.



SOURCE: Authors' tabulations of IRS tax return files for migrants.

NOTES: Intrastate excludes other valley subregions. Numbers are based on total exemptions using tax returns (see Appendix A).

Figure 3.5—Annual Net Domestic Migration Flows to the Upper Sacramento Valley, 1980–2003

Table 3.1
Migration Flows to the Upper Sacramento Valley, by Age,
1995–2000

Age	International In	Domestic In	Domestic Out	Net Domestic
5–9	1,126	7,730	7,514	216
10–14	1,082	7,141	6,466	675
15–19	2,032	7,690	7,657	33
20–24	2,582	14,009	13,917	92
25–29	1,565	9,261	15,467	(6,206)
30–34	1,055	7,711	9,363	(1,652)
35–39	1,193	7,222	8,598	(1,376)
40–44	637	6,504	6,691	(187)
45–49	445	5,381	3,930	1,451
50–54	344	4,573	3,354	1,219
55–59	267	4,306	2,825	1,481
60–64	193	3,689	1,992	1,697
65+	230	10,156	8,192	1,964

SOURCE: Authors' tabulations of 2000 census data.

The Upper Sacramento Valley fares well with respect to college students—receiving more high school graduates into the region's colleges and university than leave to attend colleges and universities in other areas of the state (see Table 3.11 at the end of this chapter). The results are driven largely by California State University (CSU) at Chico, in Butte County. Chico State attracts a disproportionately large share of its students from other subregions of the Central Valley and from other California regions. Of high school graduates from California at Chico State, only 30 percent are from the Upper Sacramento Valley. Thus, Chico State serves as a statewide institution rather than as a regional college. In 2001, Upper Sacramento Valley public colleges enrolled 11,000 students who had graduated from high schools in other parts of California; at the same time, only about 4,000 of its high school graduates went to public colleges in other California regions.

Despite the in-migration of college students, the exodus of young adults (ages 25 to 29) is a troubling pattern for the Upper Sacramento Valley. The Upper Sacramento Valley has not retained many of its own youth, and with the notable exception of very young adults (ages 18 to

24) enrolling at Chico State University, it has not attracted young adults from other areas. The pattern for Shasta County, the region's second-most-populous county, is typical of the Upper Sacramento Valley outside Chico. Shasta County loses substantial numbers of young adults between the ages of 18 and 39 to other regions of California and the nation. As will be discussed in more detail in the next chapter, these young adults leave not only to attend college—Shasta County has no four-year public colleges—but also to find jobs.²

In contrast, older adults are attracted to the Upper Sacramento Valley, with substantial numbers choosing to retire in the region. Most of these older migrants come to the Upper Sacramento Valley from the Bay Area and Southern California. However, only the three northernmost Upper Sacramento Valley counties receive substantial numbers of older adults: Butte, Shasta, and Tehama.

International migration to the Upper Sacramento Valley is a fairly recent event. The percentage of the region's population that is foreign-born is far lower than in the rest of the state. Despite a long history of agriculture, only in the past ten years have immigrant populations increased substantially. This increase has been experienced primarily in the southern part of the Upper Sacramento Valley and is undoubtedly related to farmwork (Table 3.2). The largest increases have occurred in Colusa County, where one of every eight residents is a recent immigrant (arriving in the United States within the past ten years). Within California, only San Francisco and Los Angeles Counties have a higher share of recent immigrants than Colusa County.

Recent immigrants to the Upper Sacramento Valley are much more likely to be from Mexico than from any other location. This domination of Mexico among immigrant origins is greater in the Upper Sacramento Valley than in the rest of the state. International migrants to the Upper Sacramento Valley are fairly young (Table 3.1) and help the Upper Sacramento Valley make up for domestic migration losses of young adults. Indeed, the number of young international migrants who moved to the Upper Sacramento Valley between 1995 and 2000 (8,400 people)

²See MGT of America (2001) for a more complete discussion of educational opportunities and needs in Shasta County.

Table 3.2
Percentage Distribution of Places of Birth of Residents of the Upper
Sacramento Valley, 2000

	California	Other U.S.	Abroad	Recent Foreign
Butte	65	27	8	3
Colusa	59	13	28	12
Glenn	65	17	18	7
Shasta	66	30	4	1
Sutter	58	23	19	9
Tehama	64	28	8	3
Yuba	56	31	13	6
Upper Sacramento Valley total	63	27	10	4

SOURCE: Authors' tabulations of decennial census data.

NOTE: Abroad includes the recent foreign-born, that is, international migrants arriving in the United States within the last ten years.

is almost identical to the number of young adults who left domestically (8,600 people). Of course, the socioeconomic characteristics of the international migrants are very different from those of the domestic out-migrants.

Unlike the rest of California and the rest of the Central Valley, the Upper Sacramento Valley's population is not very diverse: In 2000, three-fourths of the regions' residents were non-Hispanic white. Domestic migration to the Upper Sacramento Valley increases this share, with substantial gains from positive net flows of whites and notable net losses among Latino, Asian, and African American migration flows (Table 3.3). In the cases of Latinos and Asians, international migration more than made up for domestic losses. The flow of African Americans out of the region is notable. In 2000, only 1.2 percent of the region's population was African American (Table 3.4). The domestic migration losses of almost 2,000 African Americans represent a sizable share of this population. About one in five African Americans in the Upper Sacramento Valley left the region between 1995 and 2000.

The Upper Sacramento Valley is a net exporter of college graduates and gains adults with lower levels of education (Table 3.3). Much of

Table 3.3
Migration Flows to and from the Upper Sacramento Valley, by
Socioeconomic and Demographic Characteristics, 1995–2000

	Foreign In	Net Interstate	Net Intrastate
White	3,740	–10,082	15,876
Latino	4,994	–2,780	706
Asian	3,068	–1,085	–1,468
African American	83	–402	–1,559
American Indian	149	–411	419
Multirace	678	–329	416
Other	220	–27	133
Education			
8th grade or less	1,726	–754	425
Some high school	1,065	–1,406	1,169
High school graduate	842	–2,097	3,251
Some college	1,548	–1,924	4,426
Bachelor's degree	565	–1,886	–2,818
Graduate degree	364	–220	225
Marital status			
Married	5,121	–6,352	3,351
Never married	4,340	–4,104	3,009
Separated/divorced	460	–890	3,479
Widowed	170	–205	53
Poverty status			
All ages: above poverty	6,389	–12,212	7,470
at or below poverty	4,937	–2,151	10,597
Ages 20–64, not in school			
above poverty	4,179	–8,370	5,175
at or below poverty	2,466	–879	3,962
Welfare			
No welfare	9,377	–10,559	6,250
Received welfare	303	–189	875
Household income (\$ 1,000s):			
< 20	4,426	–1,178	11,639
20 to 39	3,518	–4,862	6,877
40 to 59	2,004	–3,162	2,211
60 to 79	687	–2,416	–527
80 to 99	304	–1,439	–482
100+	387	–1,306	–1,651

SOURCE: Authors' tabulations of 2000 census data.

NOTE: Education is determined for adults ages 25 and over; marital status for adults ages 18 and over; poverty status for persons in households; welfare for individuals between ages 18 and 64.

Table 3.4
Percentage Distribution of Characteristics of Migrants Moving to and
from the Upper Sacramento Valley, 1995–2000

	All Residents	International In	Interstate In	Interstate Out	Intrastate In	Intrastate Out
Ethnicity						
White	76.0	28.9	82.6	76.9	77.0	68.3
Latino	13.6	38.6	6.1	10.5	13.3	15.6
Asian	4.0	23.7	2.9	4.4	2.2	5.5
African American	1.2	0.6	2.6	2.6	1.8	5.2
American Indian	1.9	1.2	1.8	2.1	1.7	1.4
Multirace	3.1	5.2	3.9	3.3	3.5	3.7
Other	0.2	1.7	0.0	0.1	0.5	0.3
Education						
8th grade or less	8.0	28.2	4.0	5.7	5.9	5.8
Some high school	13.3	17.4	9.8	12.1	13.1	12.2
High school graduate	26.3	13.8	25.5	25.5	25.0	20.5
Some college	36.0	25.3	40.4	34.8	36.3	30.5
Bachelor's degree	11.3	9.2	13.2	16.3	13.4	24.0
Graduate degree	5.1	6.0	7.0	5.6	6.4	6.9
Marital status						
Married	57.4	50.7	52.0	53.1	46.0	48.6
Never married	20.1	43.0	22.3	26.9	33.4	34.1
Separated/divorced	15.1	4.6	19.4	15.3	16.0	11.8
Widowed	7.4	1.7	6.2	4.7	4.6	5.4
Household income (\$ 1,000s):						
< 20	23.6	39.1	23.3	17.9	32.3	19.5
20 to 39	28.9	31.1	31.1	32.1	27.4	23.1
40 to 59	20.5	17.7	22.8	22.6	17.9	20.2
60 to 79	12.8	6.1	11.3	13.2	10.4	15.8
80 to 99	6.0	2.7	4.3	6.3	5.1	8.2
100+	8.1	3.4	7.3	7.9	6.9	13.3
Poverty rate						
All ages	19.7	43.6	19.4	17.8	29.5	17.9
Ages 20–24, not in school	14.5	37.1	16.0	13.7	18.9	11.5
Adults ages 18–64 receiving welfare	4.4	3.1	4.7	3.6	4.9	3.6
Own house	64.4	22.5	43.8	42.1	45.8	38.9
Total, all ages	617,000	12,800	27,000	42,200	68,300	53,800

SOURCE: Authors' tabulations of 2000 census data.

NOTE: Education is determined for adults ages 25 and over; marital status for adults ages 18 and over; poverty status for persons in households; welfare for individuals between ages 18 and 64 .

this, of course, is due to Chico State University, as discussed above. Almost one-third of the intrastate out-migrants are college graduates compared to only 16 percent for all Upper Sacramento Valley residents.

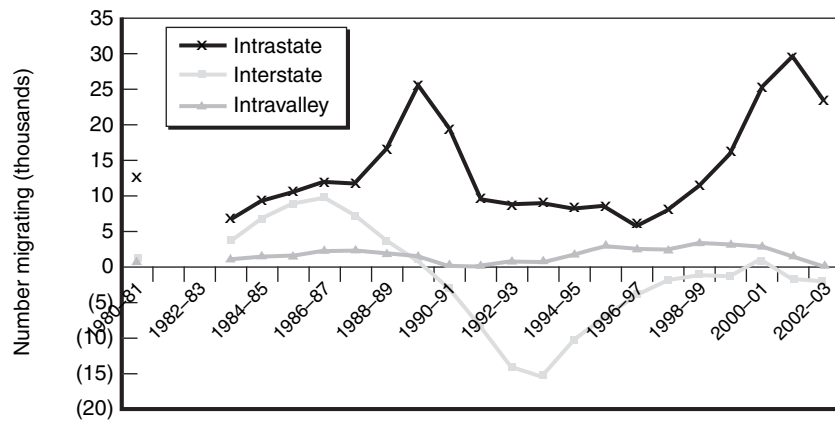
Finally, the economic circumstances of the migrants are generally not favorable. Welfare use rates are higher among interstate migrants and intrastate migrants to the Upper Sacramento Valley than among all residents in the Upper Sacramento Valley (Table 3.4). Recent international migrants, despite their high poverty rates, have low welfare use rates. This is not necessarily surprising, as immigrants are less likely to be eligible for such programs. For example, undocumented immigrants themselves are not eligible for Temporary Assistance for Needy Families.

Sacramento Metro

The Sacramento Metro region is a large, fast-growing urban area. In terms of job creation, its economy has consistently been one of California's strongest. As a consequence, the area has attracted large numbers of domestic migrants—primarily from other regions in California. Sacramento Metro has attracted international migrants as well, although fewer than the San Joaquin Valley and the state's large coastal metropolitan areas. The subregion tends to gain a diverse population from the rest of the state and sends out a less-advantaged population to the rest of the United States.

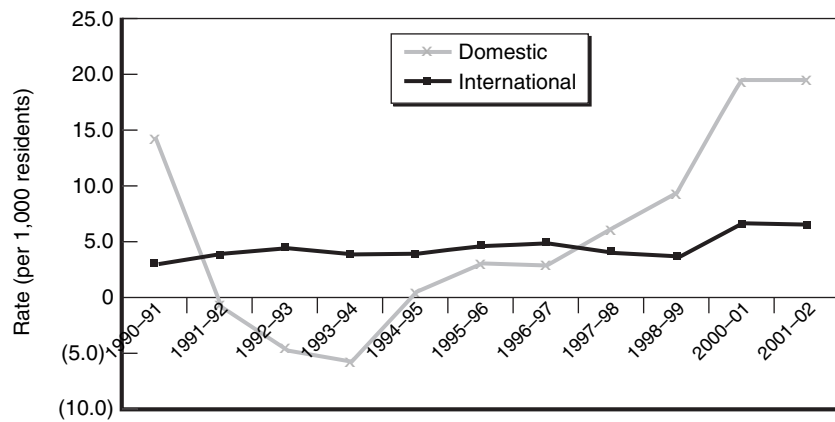
Migration flows are large, reflecting the region's large population. Sacramento Metro's net gains from the rest of the state appear to be at or near record levels (Figure 3.6). Migration losses to the rest of the United States peaked following the recession of the early 1990s, with current in-flows about equal to current out-flows. Domestic migration gains once again exceed international migration gains, with the region gaining almost three times as many domestic migrants as international migrants (Figure 3.7).

In its migration exchanges with the rest of the United States, Sacramento Metro experiences a brain gain. The region attracts more



SOURCE: Authors' tabulations of IRS tax return files for migrants.
 NOTE: Intrastate excludes other valley subregions. Numbers are based on total exemptions (see Appendix A).

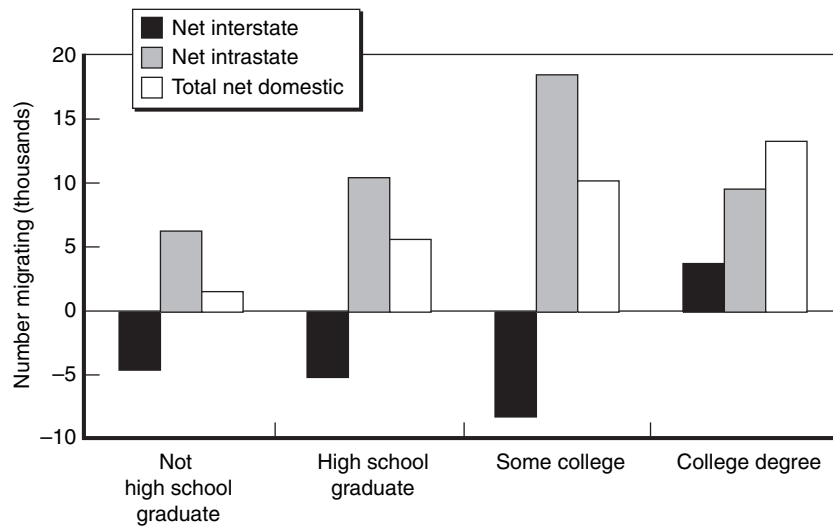
Figure 3.6—Annual Net Domestic Migration Flows to the Sacramento Metro Region, 1980–2003



SOURCE: Authors' tabulations of U.S. Census Bureau estimates.
 NOTE: Data are not available for 1999–2000.

Figure 3.7—Net Migration Rates to the Sacramento Metro Region, 1990–2002

than twice as many high school graduates from other regions to its colleges than it sends out to attend college elsewhere in the state (23,600 versus 10,800, Table 3.11). Moreover, the region attracts more college graduates than adults with any other level of educational attainment (Figure 3.8). This pattern is largely driven by interstate migration. Between 1995 and 2000, Sacramento Metro sent out less educated adults to the rest of the United States and received better educated adults. Two of every five interstate migrants to Sacramento Metro had college degrees, a far greater proportion than that for the overall population or for interstate out-migrants (Table 3.6). Even international migrants to Sacramento Metro are much better educated than international migrants to other parts of the Central Valley. Indeed, by one measure, they are better educated than Sacramento Metro's overall population; 13 percent of 1995–2000 international migrants have graduate degrees compared to only 9 percent for all Sacramento residents. At the same time, substantial numbers of international migrants have low levels of education, with 30 percent not having completed high school. Overall,



SOURCE: Authors' tabulations of 2000 census data.

Figure 3.8—Net Domestic Migration Flows to the Sacramento Metro Region, by Educational Attainment, 1995–2000

41 percent of the subregion's least-educated adults (those who have not completed high school) are foreign-born.

Sacramento's exchanges with the rest of the state—primarily the Bay Area—are not as favorable with respect to education as its exchanges with other states. Intrastate migrants who leave Sacramento Metro tend to be better educated than those coming to the region from other parts of the state (38% of out-migrants to the rest of California have at least a bachelor's degree compared to 32% of in-migrants from the rest of California). However, because Sacramento Metro receives so many more migrants from other regions in the state than it sends to those regions, it still experiences net intrastate migration gains in the number of college graduates.

Poverty rates reflect these different flows. Intrastate migrants to Sacramento Metro have poverty rates substantially higher than those of all Sacramento Metro residents (19% compared to 14%). However, many of these migrants with low incomes are college students. Poverty rates for intrastate migrants ages 20–64 and not in college are similar to the subregion's overall poverty rate. In contrast, interstate migrants to Sacramento Metro have *lower* poverty rates than other Sacramento Metro residents, whereas those who leave Sacramento Metro for other states have *higher* poverty rates (12% versus 16%). Income patterns are similar (Tables 3.5 and 3.6), but welfare use is not. Welfare is uncommon among domestic migrants to and from the Sacramento Metro region, with the percentage of adults receiving welfare lower among domestic migrants than among all Sacramento adults (Table 3.6). International migrants to the subregion have very high poverty rates and relatively high rates of welfare use as well. This could be due to those immigrants' legal status—unlike other recent immigrants, refugees are eligible for public assistance upon arrival in the United States.

For the most part, the ethnic composition of domestic migration flows to and from Sacramento Metro is similar to that of the subregion's overall population. Most domestic migrants are white (over 60% of migrants both to and from the region). Intrastate migrants are slightly more diverse than interstate migrants. In contrast, international migrants to Sacramento Metro are very diverse. No racial or ethnic group composes a majority of that flow (Table 3.6). From 1995 to

Table 3.5
Migration Flows to and from the Sacramento Metro Region, by
Socioeconomic and Demographic Characteristics, 1995–2000

	Foreign In	Net Interstate	Net Intrastate
Ethnicity			
White	22,848	–17,723	40,836
Latino	14,751	–4,833	13,425
Asian	12,484	–2,032	8,884
African American	1,982	–236	6,980
American Indian	155	–495	130
Multirace	3,627	–1,038	3,399
Other	281	–73	–83
Education			
8th grade or less	5,591	–1,602	2,972
Some high school	4,102	–3,055	3,273
High school graduate	6,707	–5,131	10,640
Some college	6,642	–8,180	18,257
Bachelor's degree	4,654	1,542	7,738
Graduate degree	4,130	2,067	1,868
Marital status			
Married	25,961	–9,378	32,191
Never married	11,699	–6,784	14,859
Separated/divorced	2,722	–5,442	7,790
Widowed	1,504	689	2,972
Poverty status			
All ages: above poverty	36,603	–15,610	56,387
at or below poverty	18,162	–6,948	14,938
Ages 20–64 not in school			
above poverty	23,029	–11,497	37,263
at or below poverty	8,186	–4,051	4,678
Welfare			
No welfare	36,465	–20,526	48,837
Received welfare	3,160	–569	1,789
Household income (\$1,000s)			
< 20	15,431	–7,480	15,429
20 to 39	16,883	–8,992	19,943
40 to 59	9,887	–4,090	13,411
60 to 79	5,611	–1,796	10,067
80 to 99	3,055	–1,281	5,096
100+	3,898	1,081	7,379

SOURCE: Authors' tabulations of 2000 census data.

NOTE: Education is determined for adults ages 25 and over; marital status for adults ages 18 and over; poverty status for persons in households; welfare for individuals between ages 18 and 64.

Table 3.6
Percentage Distribution of Characteristics of Migrants Moving to and from
the Sacramento Metro Region, 1995–2000

	All Residents	International In	Interstate In	Interstate Out	Intrastate In	Intrastate Out
Ethnicity						
White	63.4	40.7	69.0	68.6	62.4	66.8
Latino	15.3	26.3	10.4	12.2	15.7	14.0
Asian	9.4	22.2	8.2	8.1	9.9	8.6
African American	6.9	3.5	6.3	5.1	7.2	5.8
American Indian	0.7	0.3	1.3	1.4	0.8	1.1
Multirace	4.1	6.5	4.5	4.4	3.8	3.3
Other	0.2	0.5	0.2	0.2	0.2	0.4
Education						
8th grade or less	6.0	17.6	3.2	4.8	4.7	3.6
Some high school	9.4	12.9	6.5	9.4	7.9	8.3
High school graduate	22.2	21.1	18.9	22.2	19.9	17.7
Some college	35.6	20.9	32.0	36.9	35.4	32.2
Bachelor's degree	17.7	14.6	23.5	16.9	22.7	25.8
Graduate degree	9.0	13.0	15.8	10.0	9.4	12.5
Marital status						
Married	56.0	62.0	52.3	50.6	48.1	43.6
Never married	23.1	27.9	27.9	28.9	33.4	37.9
Separated/divorced	14.7	6.5	14.4	17.0	14.1	14.4
Widowed	6.2	3.6	5.5	3.5	4.5	4.1
Household income (\$1,000s)						
< 20	14.7	28.2	13.7	17.7	18.6	16.6
20 to 39	22.0	30.8	21.2	25.1	23.4	20.4
40 to 59	20.2	18.1	20.7	20.1	18.4	18.1
60 to 79	16.4	10.2	15.5	14.0	14.7	15.1
80 to 99	9.8	5.6	9.3	8.6	8.7	9.7
100+	16.9	7.1	19.5	14.5	16.2	20.1
Poverty rate: all ages	13.6	33.2	12.0	15.9	18.6	17.0
Ages 20–64, not in school	10.4	26.6	9.3	12.9	11.1	10.5
Adults ages 18–64 receiving welfare	3.4	8.0	2.7	2.7	3.0	2.7
Own house	64.9	30.4	47.0	45.8	46.3	43.3
Total, all ages	1,803,000	54,800	89,100	115,600	191,200	117,800

SOURCE: Authors' tabulations of 2000 census data.

NOTE: Education is determined for adults ages 25 and over; marital status for adults ages 18 and over; poverty status for persons in households; welfare for individuals between ages 18 and 64.

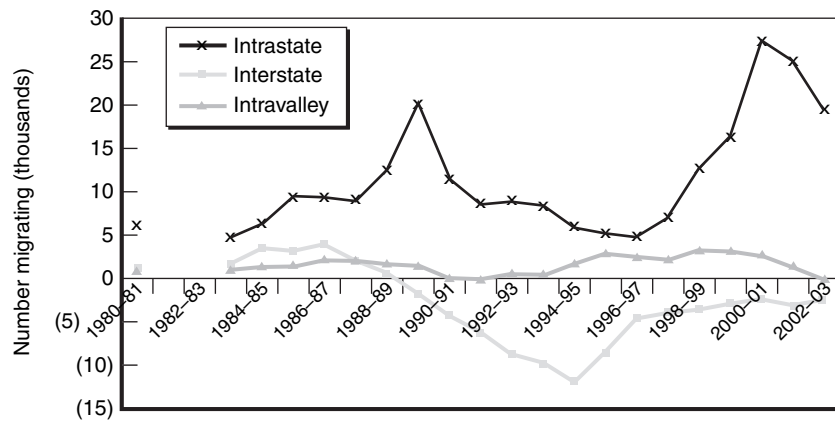
2000, white immigrants were the largest group, and Sacramento Metro is the only region in the state with such a large share (over 40%) of white international migrants. The subregion has become a favored destination of migrants from some East European countries (including Russia and the Ukraine). In comparison to the rest of the valley and to the rest of the state, Latinos are underrepresented among Sacramento Metro's immigrants but still make up over one in four international migrants. The Sacramento Metro region is the only valley subregion that attracts a sizable population of recent Asian immigrants: 22 percent of international immigrants to Sacramento between 1995 and 2000 originated in Asia.

North San Joaquin Valley

Strong population growth in the North San Joaquin Valley has been fueled by migration, especially from the Bay Area. Still, the region retains some of its agricultural base and continues to draw large numbers of international migrants, especially from Latin America.

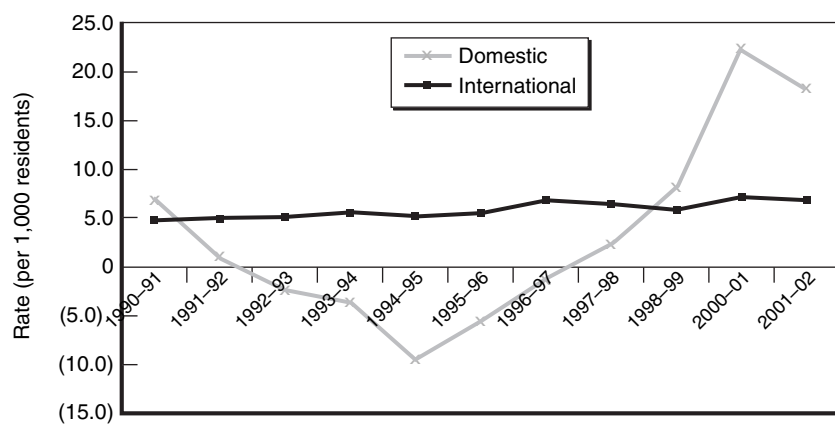
Migration flows show a strong cyclical pattern. During periods of strong economic growth, intrastate migration to the North San Joaquin Valley has been high; during economic downturns it has slowed (Figure 3.9). Intrastate migration out of the North San Joaquin Valley is less affected by economic cycles, perhaps because other regions of California experience downturns simultaneously. Instead of leaving for other parts of California during a recession, North San Joaquin Valley residents seem more inclined to leave for other states. Overall, the trend since the mid-1990s has been toward higher domestic migration flows. All of the net increases have come from intrastate migrants, primarily migrants from the Bay Area. International migration has remained fairly steady (Figure 3.10).

The greatest gains from domestic migration occur among young adults ages 25–39 and among children ages 5–14. A large majority of domestic migrants are in these age groups. These flows are obviously related and are a consequence of the North San Joaquin Valley's attractiveness to young families. International migrants are concentrated in young adult ages as well, although the proportion of young children is not as great. The peak ages for international migrants are ages 15 to 29.



SOURCE: Authors' tabulations of IRS tax return files for migrants.
 NOTE: Intrastate excludes other valley subregions. Numbers are based on total exemptions (see Appendix A).

Figure 3.9—Annual Net Domestic Migration Flows to the North San Joaquin Valley, 1980–2003



SOURCE: U.S. Census Bureau estimates.
 NOTE: Data are not available for 1999–2000.

Figure 3.10—Net Migration Rates to the North San Joaquin Valley, 1990–2002

Despite overall strong gains through domestic migration, the North San Joaquin Valley experiences a net domestic loss of young adults ages 18 to 24. This outflow is almost certainly related to the lack of large four-year colleges and universities in the North San Joaquin Valley. The region loses almost four times as many of its college-bound high school students to the rest of California as it receives from the rest of the state (Table 3.11). Currently, the area's only public university is California State University, Stanislaus. Its enrollment is quite modest—fewer than 4,000 full-time undergraduates in 2002–2003. The University of the Pacific in Stockton, a private university, also has a relatively small enrollment: just over 3,000 full-time undergraduates in 2003. The opening of the new University of California campus in Merced will undoubtedly have a dramatic effect on migration patterns of recent high school graduates in the North San Joaquin Valley. UC Merced expects its first students in fall 2005. By 2010, the university expects to have 5,000 undergraduates, with continuing increases thereafter to an eventual total enrollment of 25,000 students.

Residents of the North San Joaquin Valley have low levels of educational attainment, with only 14 percent of adults ages 25 and over having college degrees and 30 percent not completing high school. The latter figure is largely a consequence of low educational attainment among many international migrants. Among international migrants arriving in the region between 1995 and 2000, 60 percent had not completed high school. Overall, almost half (48%) of the subregion's adults who have not completed high school are foreign-born. However, the low numbers of college graduates cannot be attributed to international migrants. In fact, those migrants had about the same proportion of college graduates as did all North San Joaquin Valley residents ages 25 and over. Instead, domestic migration at least partly accounts for the lack of college graduates. The North San Joaquin Valley actually sent out more college graduates than it received domestically between 1995 and 2000 (Figure 3.11).

The North San Joaquin Valley tends to attract middle-income domestic migrants (Table 3.7). Poverty rates of those moving in from other places in the United States are lower than those for all North San

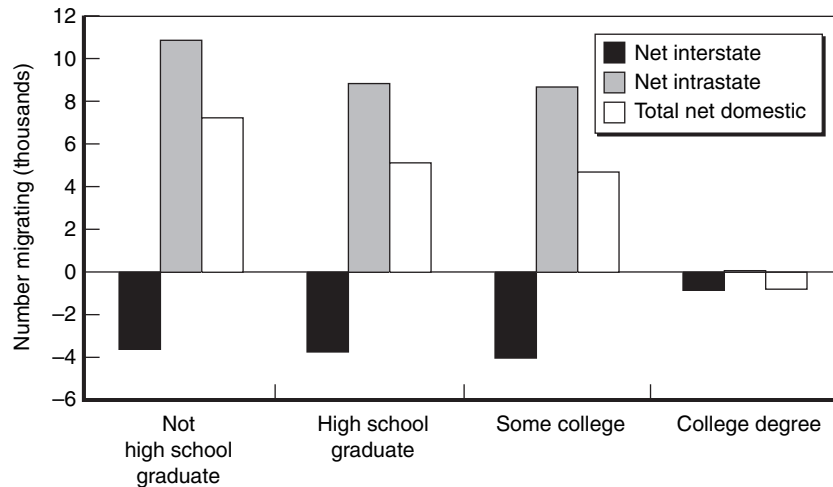


Figure 3.11—Net Domestic Migration Flows to the North San Joaquin Valley, by Educational Attainment, 1995–2000

Joaquin Valley residents. Since 2000, as domestic migration flows have continued to be strong, poverty rates have fallen in the region despite the economic downturn in the state. PPIC's Central Valley survey of 1999 found that North San Joaquin Valley residents who commuted to Bay Area counties had substantially higher incomes than other North San Joaquin Valley workers. In contrast, poverty rates of recent international migrants are astoundingly high—over 40 percent (Table 3.7). As in other subregions (except Sacramento Metro), these high poverty rates do not lead to greater use of public assistance among these recent immigrants. Of all migrants to the North San Joaquin Valley from 1995 to 2000, international migrants had the lowest rate of welfare use (Table 3.8).

No racial or ethnic group constituted a majority of the North San Joaquin Valley's population in 2000. Whites were the largest group at just under half of the population. Migrants, both international and domestic, have added to the region's diverse population. The large majority (two-thirds) of international migrants are Latino. Among domestic migrants, whites and Asians are overrepresented among out-migrants. As a consequence, the subregion experiences net losses of

Table 3.7
Migration Flows to and from the North San Joaquin Valley, by
Socioeconomic and Demographic Characteristics, 1995–2000

	Foreign In	Net Interstate	Net Intrastate
Ethnicity			
White	3,420	–15,275	9,931
Latino	23,089	–6,559	23,056
Asian	5,134	–2,671	–1,607
African American	258	–991	6,378
American Indian	225	–73	–569
Multirace	1,422	414	1,562
Other	264	–72	187
Education			
8th grade or less	6,627	–1,721	3,685
Some high school	3,023	–1,888	7,170
High school graduate	2,335	–3,705	8,850
Some college	1,925	–3,999	8,684
Bachelor's degree	1,374	–797	121
Graduate degree	802	–68	–38
Marital status			
Married	13,650	–9,281	22,854
Never married	9,459	–6,201	–1,727
Separated/divorced	1,531	–2,803	3,140
Widowed	652	–234	1,221
Poverty status			
All ages: above poverty	18,909	–17,000	34,095
at or below poverty	14,253	–6,790	5,647
Ages 20–64, not in school			
above poverty	12,096	–11,350	24,265
at or below poverty	8,176	–3,505	4,699
Welfare			
No welfare	23,363	–17,078	20,046
Received welfare	757	–451	1,021
Household income (\$ 1,000s)			
< 20	8,786	–6,811	5,105
20 to 39	10,211	–7,126	8,754
40 to 59	7,353	–5,086	11,320
60 to 79	3,277	–1,714	10,048
80 to 99	1,890	–1,496	3,724
100+	1,645	–1,557	791

SOURCE: Authors' tabulations of 2000 census data.

NOTE: Education is determined for adults ages 25 and over; marital status for adults ages 18 and over; poverty status for persons in households; welfare for individuals between ages 18 and 64.

Table 3.8
Percentage Distribution of Characteristics of Migrants Moving to and
from the North San Joaquin Valley, 1995–2000

	All Residents	International In	Interstate In	Interstate Out	Intrastate In	Intrastate Out
Ethnicity						
White	49.7	10.1	59.8	60.1	45.2	54.1
Latino	33.3	68.3	17.0	20.9	34.1	22.8
Asian	8.1	15.2	8.5	9.4	6.8	11.7
African American	4.3	0.8	4.5	4.2	9.2	6.0
American Indian	0.6	0.7	2.1	1.3	0.5	1.4
Multirace	3.7	4.2	8.1	3.9	3.8	3.7
Other	0.3	0.8	0.1	0.2	0.3	0.3
Education						
8th grade or less	14.6	41.2	8.5	10.5	11.0	9.9
Some high school	15.6	18.8	11.2	12.8	17.2	12.7
High school graduate	25.4	14.5	24.5	26.7	25.1	21.7
Some college	30.5	12.0	33.6	33.3	32.4	33.4
Bachelor's degree	9.6	8.5	14.0	11.3	10.3	15.8
Graduate degree	4.3	5.0	8.1	5.4	4.1	6.5
Marital status						
Married	59.6	54.0	54.4	52.6	59.8	48.7
Never married	21.2	37.4	25.2	28.7	22.4	33.3
Separated/divorced	12.9	6.1	14.9	15.0	13.7	14.2
Widowed	6.3	2.6	5.6	3.8	4.1	3.8
Household income (\$1,000s)						
< 20	18.9	26.5	19.5	23.4	17.7	20.2
20 to 39	26.0	30.8	25.7	27.5	22.4	22.6
40 to 59	21.2	22.2	20.3	20.8	22.6	19.6
60 to 79	15.4	9.9	12.8	10.4	17.6	13.6
80 to 99	7.6	5.7	7.7	7.1	8.5	8.1
100+	11.0	5.0	14.0	10.8	11.2	15.9
Poverty status						
Poverty rate: all ages	19.3	43.0	18.4	22.7	18.9	21.3
Ages 20–64, not in school	15.4	40.3	15.2	18.6	15.5	15.1
Adults ages 18–64 receiving welfare	4.1	3.1	4.6	3.7	4.1	3.9
Own house	63.1	28.2	45.0	45.2	55.8	41.6
Total, all ages	1,223,000	33,100	33,000	58,200	125,100	86,200

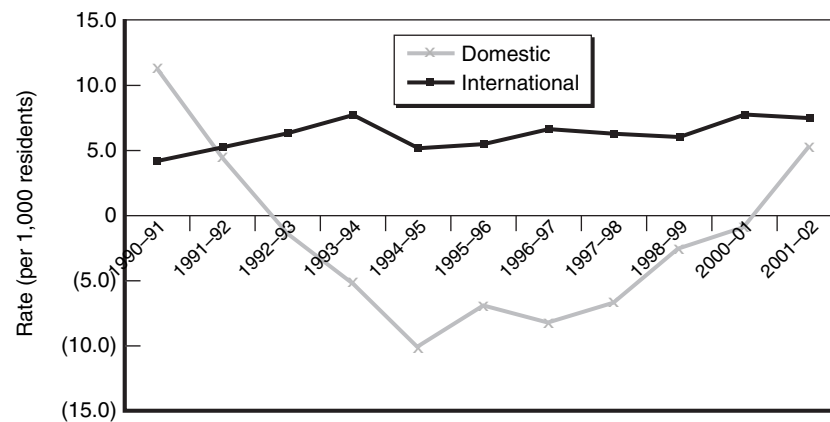
SOURCE: Authors' tabulations of 2000 census data.

NOTE: Education is determined for adults ages 25 and over; marital status for adults ages 18 and over; poverty status for persons in households; welfare for individuals between ages 18 and 64.

white and Asians to the rest of the United States and substantial net gains of Latinos and African Americans from the rest of California.

South San Joaquin Valley

The South San Joaquin Valley's migration flows are distinct from those of other valley subregions and in many ways pose the greatest challenges. Both the international and the domestic migrants to the South San Joaquin Valley are less educated and more likely to live in poverty than are international and domestic migrants to other valley subregions. Unlike the other subregions of the valley, the South San Joaquin Valley tends to receive more international migrants than domestic migrants (Figure 3.12). Over the past ten years, the South San Joaquin Valley has gained domestic migrants from the rest of California and lost migrants to the rest of the United States. Domestic outflows to the rest of the United States have been quite large; the South San Joaquin Valley was the only Central Valley subregion to experience net migration losses during the 1990s. Intrastate domestic migration to the South San Joaquin Valley corresponds roughly to business cycles.



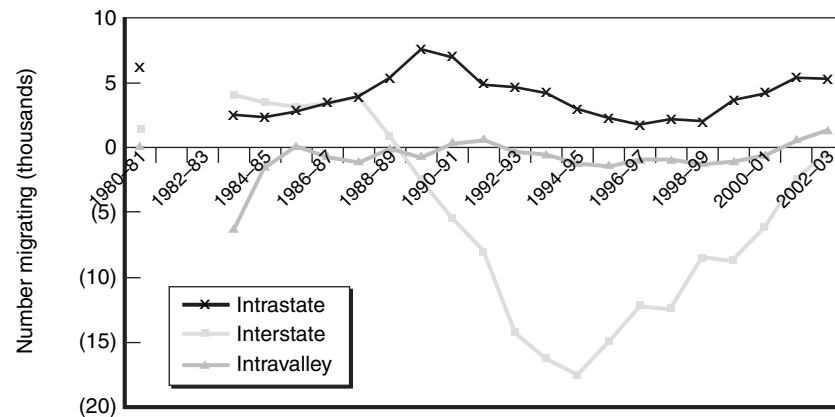
SOURCE: U.S. Census Bureau estimates.
NOTE: Data are not available for 1999–2000.

Figure 3.12—Net Migration Rates to the South San Joaquin Valley, 1990–2002

Interstate flows out of the South San Joaquin Valley are also cyclical, increasing during economic downturns (Figure 3.13). The most recent data suggest that net domestic gains from the rest of the state more than offset continuing net losses to the rest of the United States. International migration remains consistent and positive, at about 10,000 per year.

Between 1995 and 2000, the South San Joaquin Valley lost substantial numbers of young adults and children to other regions in the United States. Beyond age 45, net gains through intrastate migration offset net losses from interstate migration. Overall, declines were greatest among young adults ages 20–24—those entering college or the labor force. International migration to the South San Joaquin Valley was centered on those same age groups (Table 3.9).

Married couples were more likely than single individuals to move to the South San Joaquin Valley. Among adults, about 60 percent of South San Joaquin Valley residents, international migrants, and domestic in-migrants were married (Table 3.10). Single individuals were



SOURCE: Authors' tabulations of IRS tax return files for migrants.

NOTE: Intrastate excludes other valley subregions. Numbers are based on total exemptions (see Appendix A).

Figure 3.13—Annual Net Domestic Migration Flows to the South San Joaquin Valley, 1980–2003

Table 3.9
Migration Flows to and from the South San Joaquin Valley, by
Socioeconomic and Demographic Characteristics, 1995–2000

	Foreign In	Net Interstate	Net Intrastate	Total Net Domestic
Ethnicity				
White	10,127	–33,322	3,691	–29,631
Latino	44,821	–30,214	14,864	–15,350
Asian	6,559	–11,959	–1,978	–13,937
African American	3,892	–3,075	8,002	4,927
American Indian	413	–733	269	–464
Multirace	1,081	–1,396	615	–781
Other	65	–147	–81	–228
Education				
8th grade or less	12,462	–10,213	3,273	–6,940
Some high school	6,711	–6,859	7,353	494
High school graduate	6,844	–11,191	11,890	699
Some college	4,767	–10,516	6,544	–3,972
Bachelor's degree	1,896	–3,643	–1,903	–5,546
Graduate degree	1,177	–663	374	–289
Marital status				
Married	31,137	–32,946	25,779	–7,167
Never married	16,116	–17,676	–11,667	–29,343
Separated/divorced	2,929	–6,629	1,815	–4,814
Widowed	1,480	–933	2,893	1,960
Poverty status				
All ages: above poverty	30,349	–58,944	–5,261	–64,205
at or below poverty	25,506	–18,576	8,436	–10,140
Ages 20–64 not in school:				
above poverty	18,802	–39,305	–2,526	–41,831
at or below poverty	14,186	–9,052	5,562	–3,490
Welfare				
No welfare	48,748	–54,903	16,247	–38,656
Received welfare	1,468	–1,569	1,361	–208
	50,216	–56,472	17,608	–38,864
Household income (\$ 1,000)				
< 20	18,481	–17,163	9,663	–7,500
20 to 39	18,760	–24,546	4,170	–20,376
40 to 59	8,063	–17,473	–1,091	–18,564
60 to 79	6,064	–8,608	–3,095	–11,703
80 to 99	1,793	–5,093	–1,116	–6,209
100+	2,694	–4,637	–5,356	–9,993

SOURCE: Authors' tabulations of 2000 census data.

NOTE: Education is determined for adults ages 25 and over; marital status for adults ages 18 and over; poverty status for persons in households; welfare for individuals between ages 18 and 64.

Table 3.10
Percentage Distribution of Characteristics of Migrants Moving to and from
the South San Joaquin Valley, 1995–2000

	All Residents	International In	Interstate In	Interstate Out	Intrastate In	Intrastate Out
Ethnicity						
White	43.6	15.1	63.8	50.9	45.8	52.6
Latino	43.4	66.9	19.7	29.8	34.6	29.4
Asian	4.8	9.8	4.9	10.5	4.7	7.5
African American	4.6	5.8	4.0	3.9	11.1	6.7
American Indian	0.9	0.6	2.0	1.4	0.8	0.8
Multirace	2.5	1.6	5.4	3.3	2.8	2.9
Other	0.1	0.1	0.2	0.2	0.2	0.3
Education						
8th grade or less	17.9	36.8	6.3	15.7	11.3	11.1
Some high school	15.5	19.8	11.8	14.0	16.9	13.0
High school graduate	23.5	20.2	19.9	23.2	27.6	21.4
Some college	28.7	14.1	33.8	28.8	29.0	31.0
Bachelor's degree	9.7	5.6	17.8	12.8	9.8	16.4
Graduate degree	4.6	3.5	10.4	5.6	5.4	7.1
Marital status						
Married	59.5	60.3	57.0	56.8	62.8	48.1
Never married	21.8	31.2	22.2	26.8	18.4	34.3
Separated/divorced	12.6	5.7	15.7	13.3	13.0	13.7
Widowed	6.2	2.9	5.2	3.2	5.8	3.9
Poverty status						
Poverty rate: all ages	24.2	45.7	19.1	21.9	28.9	21.5
Ages 20–64, not in school	19.0	43.0	15.9	17.5	22.7	15.1
Welfare						
Adults ages 18–64 receiving welfare	4.7	2.9	4.5	3.5	4.4	3.8
Household income (\$ 1,000s)						
< 20	23.9	33.1	19.4	20.9	28.4	19.8
20 to 39	28.9	33.6	26.0	29.2	27.9	24.7
40 to 59	19.9	14.4	21.4	22.0	18.8	20.5
60 to 79	12.0	10.9	14.9	12.7	10.8	14.2
80 to 99	6.0	3.2	7.5	7.0	6.3	7.6
100+	9.2	4.8	10.9	8.1	7.8	13.2
Own house	62.4	29.4	42.3	41.3	45.2	35.0
Total, all ages	2,072,000	66,100	60,900	141,700	142,400	117,000

SOURCE: Authors' tabulations of 2000 census data.

NOTE: Education is determined for adults ages 25 and over; marital status for adults ages 18 and over; poverty status for persons in households; welfare for individuals between ages 18 and 64.

overrepresented in the outflows, especially those flows to other parts of the state. This partly reflects the age structure of migration, as younger individuals are less likely to be married.

At the time of the 2000 census, Latino and white populations in the South San Joaquin Valley were about the same size. Since then, Latinos have become the largest group through migration and natural increase. The vast majority of international migrants to the valley are Latino: Between 1995 and 2000, two of every three international migrants to the South San Joaquin Valley were Latino (Table 3.10). During the same period, the South San Joaquin Valley experienced net domestic migration losses for every group except African Americans (Table 3.9). Over half of the domestic out-migrants were white. More so than any other group, Asians were substantially overrepresented among the domestic out-flows.

Residents of the South San Joaquin Valley have low levels of educational attainment—the lowest in the state and among the lowest nationwide. The number of adults who have not completed high school is twice as great as the number that have completed college (33% and 14%, respectively). High school students bound for college are much more likely to leave the South San Joaquin Valley than to come to the South San Joaquin Valley from other regions of the state (Table 3.11). Domestic migration among those ages 25 and over leads to even further reductions in the already low number of college graduates (Figure 3.14). Intrastate migration patterns are especially striking, with 24 percent of out-migrants from the South San Joaquin Valley having college degrees compared to only 15 percent of in-migrants. International migrants to the South San Joaquin Valley are the least educated of any of the migrant streams: Only 9 percent have college degrees, and more than half have not completed high school. Foreign-born residents of the South San Joaquin Valley account for over half (51%) of the subregion's least-educated adults (those who have not completed high school), and only 13 percent of the region's college graduates.

Poverty rates are higher and incomes are relatively low among migrants to the South San Joaquin Valley. Almost half of international migrants arriving between 1995 and 2000 lived in poverty, and over one-fourth of domestic migrants arriving from other parts of California lived

Table 3.11

High School to College Migration Flows, 2001 Enrollments

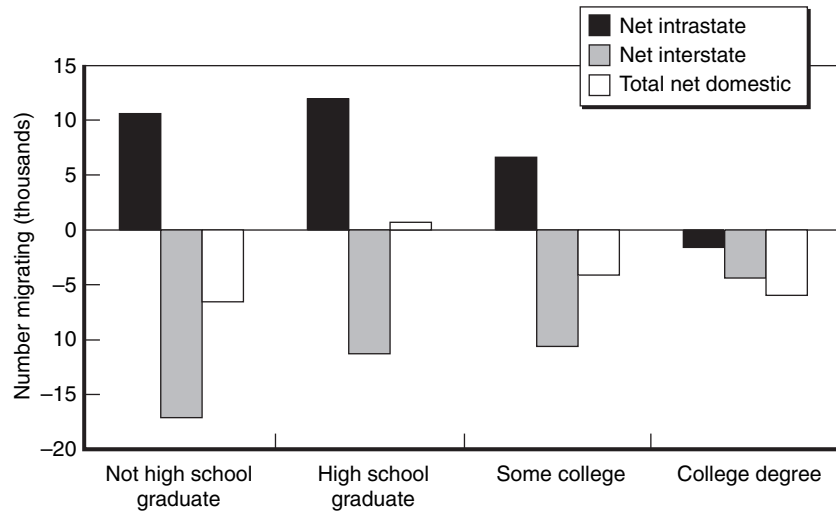
Region	To	From	Net
Flows Between the Valley and the Rest of the State			
Full-time college students			
Upper Sacramento Valley	7,889	2,522	5,367
Sacramento Metro	18,731	8,624	10,107
North San Joaquin Valley	1,342	4,704	(3,362)
South San Joaquin Valley	3,283	7,587	(4,304)
Central Valley total	31,245	23,437	7,808
Full-time UC students			
Upper Sacramento Valley		557	(557)
Sacramento Metro	12,315	3,624	8,691
North San Joaquin Valley		1,611	(1,611)
South San Joaquin Valley		2,990	(2,990)
Central Valley total	12,315	8,782	3,533
Full-time CSU students			
Upper Sacramento Valley	6,537	1,416	5,121
Sacramento Metro	4,611	3,880	731
North San Joaquin Valley	644	2,500	(1,856)
South San Joaquin Valley	2,650	3,320	(670)
Central Valley total	14,442	11,116	3,326
Full-time California Community College students			
Upper Sacramento Valley	1,352	549	803
Sacramento Metro	1,805	1,120	685
North San Joaquin Valley	698	593	105
South San Joaquin Valley	633	1,277	(644)
Central Valley total	4,488	3,539	949
Flows Between Valley Subregions			
Full-time college students			
Upper Sacramento Valley	2,719	1,561	1,158
Sacramento Metro	4,854	2,170	2,684
North San Joaquin Valley	512	3,941	(3,429)
South San Joaquin Valley	1,226	1,639	(413)
Central Valley total	9,311	9,311	—
Full-time UC students			
Upper Sacramento Valley	—	411	(411)
Sacramento Metro	2,016	—	2,016
North San Joaquin Valley	—	854	(854)
South San Joaquin Valley	—	751	(751)
Central Valley total	2,016	2,016	—

Table 3.11 (continued)

Region	To	From	Net
Full-time CSU			
Upper Sacramento Valley	2,118	841	1,277
Sacramento Metro	2,310	1,512	798
North San Joaquin Valley	230	2,748	(2,518)
South San Joaquin Valley	1,067	624	443
Central Valley total	5,725	5,725	—
Full-time California Community College students			
Upper Sacramento Valley	601	309	292
Sacramento Metro	528	658	(130)
North San Joaquin Valley	282	339	(57)
South San Joaquin Valley	159	264	(105)
Central Valley total	1,570	1,570	—

SOURCE: Authors' tabulations of California Postsecondary Education Commission data.

NOTE: College enrollment is for undergraduates in public colleges and universities in California only.



SOURCE: Authors' tabulations of 2000 Census data.

Figure 3.14—Net Domestic Migration Flows to the South San Joaquin Valley, by Educational Attainment, 1995–2000

at or below the poverty level. Despite these high poverty rates, welfare use rates are relatively low among the migrants. Those with the highest poverty rates—recent international migrants—have the lowest welfare use rates. This is at least partly due to eligibility; recent immigrants are generally ineligible for public assistance.

Overall, these migration patterns represent a challenge for California's most impoverished region and one of the state's fastest-growing regions. Poor economic outcomes and low skills of migrants to the South San Joaquin Valley are an important factor in understanding overall economic outcomes in the region. Perhaps of greater concern, however, is the out-migration of more highly skilled young adults from the South San Joaquin Valley. Given the relative scarcity of college graduates in the South San Joaquin Valley and their relative abundance in nearby coastal regions, it is all the more remarkable that the South San Joaquin Valley experiences net migration losses of this group.

Summary

Although some commonalities exist in migration patterns across the Central Valley's subregions, sharp differences are equally evident and significant, making it difficult to make generalizations for the entire Central Valley. Moreover, socioeconomic characteristics of the migrants also differ sharply across the valley. These differences partly reflect and contribute to the different demographic compositions, economies, and histories of the valley's subregions. They also suggest that the underlying determinants of migration—the factors that pull some people to the valley and push others out—differ significantly across the valley's subregions.

4. Why Do They Come and Why Do They Leave?

People move for many reasons. They seek better jobs, better climates, new landscapes, or simply to be with family. Research on migration patterns has focused primarily on economic considerations. In the case of migration to and from the Central Valley, economic factors do indeed seem to be paramount. Most international migrants come to the valley for economic opportunities—jobs—that are not present in their homelands. Domestic migration flows also respond to economic conditions. For example, California's deep recession and high unemployment of the early 1990s coincide with the greatest net outflows ever experienced by the state (Johnson, 2000). That many of these out-migrants were young workers suggests that economic concerns, particularly the availability of jobs, were central to their decisions to leave the state. Other economic considerations, including the cost of housing, also play a role in migration decisions. The desire to live in a single family dwelling remains very strong in California (Baldassare, 2002), yet many households are priced out of the expensive coastal markets.

Noneconomic factors also affect migration decisions. Foremost among them are social reasons, particularly the desire to live with or near family members. The formation of a new household through marriage or the birth of a child may lead to migration, as can the dissolution of a household through divorce or separation. Among young adults, educational opportunities are an important consideration. College-bound high school graduates choose among numerous types of colleges in various locations. Amenities also matter. For the small but not insignificant share of migrants who move at older ages, decisions about where to retire may be based on quality-of-life considerations including the cost of living (there is no shortage of books, articles, and websites on best places to retire).

Finally, migration decisions are complex, often involving entire families rather than lone individuals, and few if any moves are based on a single factor. International migrants choose the Central Valley as a destination partly because they can find employment but also because social networks provide support and information to immigrants before and after they arrive. An individual or family might have a long-standing locational preference that is based on family ties or amenities but may wait to act on that preference until employment is found in that place.

We use several datasets and approaches to assess migration motivations. The patterns of migration and characteristics of migrants presented in the previous chapter provide important clues as to how, why, and when individuals decide to migrate. The Current Population Surveys of 1998 through 2003 directly asked respondents who had moved in the year before the survey the reason for the move.¹ We consider responses to that question in this chapter. The 1999 and 2003 PPIC Central Valley survey asked a question on migration intentions, which we also consider here. Finally, we develop statistical models of migration based on individual records from the 2000 census.

We find that the reasons for migration vary according to the type of migration stream, the destination within the valley, and the migrant's original location. Economic considerations are clearly important. The cyclical nature of the domestic migration flows shown in Chapter 3 attests to the importance of business cycles in migration decisions. Specifically, when California's and the valley's economies have been strong, the valley has attracted large numbers of migrants from other parts of California. Part of this migration might be attributed to coastal workers who cannot find affordable housing near their places of employment. When California and the valley's economy have been weak, the Central Valley has sent out large numbers of migrants to other parts of the United States. Interstate inflows also respond to business cycles, with inflows to the Central Valley dampened during economic downturns.

¹Specifically, the question asked: "What was your main reason for moving?"

Responses to the CPS question on reasons for migrating also highlight the importance of jobs. Among international migrants and interstate migrants to the valley, the most frequently cited reasons for the move were job-related (Table 4.1). Almost half of international migrants cited job-related reasons as their primary motivation for moving to the Central Valley. In contrast, among California migrants moving to a new county, jobs were secondary to housing considerations. Job-related reasons were particularly important for migrants to the Sacramento Metro region, a reflection of that subregion's particularly strong economy. Our statistical models of migration also highlight the importance of jobs, showing that individuals are pushed from regions with high unemployment rates and pulled to regions with low unemployment rates.

Unfortunately, the CPS is the only dataset that specifically provides migrant's self-reported reasons for moving and does not allow us to

Table 4.1
Percentage Distribution of Primary Reasons Given for Migrating to the Central Valley

Type of Migration	Upper Sacramento Valley	Sacramento Metro	North San Joaquin Valley	South San Joaquin Valley	Central Valley Total
Different county, same state					
Housing-related	28	43	51	31	40
Job-related	14	32	21	27	25
Family-related	33	11	17	29	20
Other	25	14	11	13	15
Interstate					
Housing-related	13	15	20	22	18
Job-related	32	48	29	33	37
Family-related	30	16	40	37	30
Other	25	21	11	8	15
Abroad					
Housing-related	5	12	0	0	3
Job-related	15	54	36	51	46
Family-related	64	18	30	48	43
Other	16	16	34	1	8

SOURCE: Authors' tabulations of the 1998–2003 CPS.

identify out-migrants from the valley.² To examine the motivations for migration among those who leave the valley, we rely on two data sources and approaches: We use 2000 census data to develop statistical models that identify the individual and economic characteristics most strongly related to out-migration (see Appendix A), and we use two PPIC surveys that included a question on intentions to move out of the valley.

The statistical models based on the census data provide us with the characteristics of those most likely to leave the valley. From those characteristics, we can infer or at least speculate on the motivations for leaving. We find that young adults are much more likely than older adults to leave the valley. Partly, this simply reflects life-cycle effects—young adults are more likely to encounter events that necessitate or facilitate migration, such as graduation from high school or college, leaving their parents' home, marriage, or entry into the labor market. Thus, it is also true that migrants to the valley are generally younger. However, the probability of leaving the valley is much less pronounced for young adults in the Sacramento Metro region than for young adults in other regions. Undoubtedly this is due to the relative abundance of educational and employment opportunities in that area. Adults in the labor force (as measured after migration) are more likely than those who do not participate in the labor force to leave the valley (except for Sacramento Metro, with its stronger economy). The probability of finding employment—as measured by the employment rate in the models (one less the unemployment rate)—is a very important predictor of out-migration. Specifically, in the Upper Sacramento Valley, the Sacramento Metro region, and North San Joaquin Valley, low probabilities of finding employment are strong predictors of out-migration. The effect is not as strong in the North San Joaquin Valley as in the Sacramento Metro region and the Upper Sacramento Valley, indicative perhaps that the North San Joaquin Valley labor market includes areas outside the valley (i.e., the Bay Area). The result for the

²We can identify region of current residence and whether a migrant has moved across county or state lines. For migrants, we do not know the specific county or substate region of origin but do know the specific state of origin. Thus, we can identify out-migrants from California but not from the Central Valley.

South San Joaquin Valley is in the opposite direction—areas with low employment rates have less out-migration. Perhaps this signals that residents of those regions have nowhere left to go (housing costs are higher almost everywhere else in the state) and lack the resources necessary to afford to move. We also find that African Americans and Latinos are less likely than whites to leave. The ethnically diverse neighborhoods of many valley communities could be part of the appeal of the valley for those groups (the Central Valley has some of the state’s most diverse cities³). Alternatively, whites could be leaving at relatively high rates partly as a response to increasing diversity (sometimes termed “white flight” or “white fright”). Those who were born in other states are much more likely than those born in California to leave the valley. This suggests that social networks are an important determinant of migration; those born outside California are more likely to have friends and family members elsewhere. Those friends and family members not only serve as a magnet themselves but also provide potential migrants with information about jobs and living conditions outside the valley.⁴

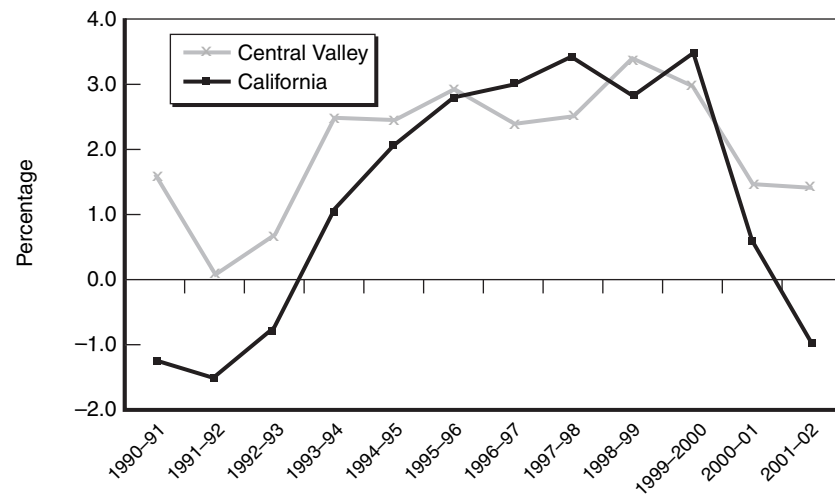
The PPIC surveys provide additional information on intentions to leave the valley. Those surveys show that those who are most established in the valley—long term residents, those with relatively high incomes, and homeowners—are least likely to intend to move within the next five years. The percentage of survey respondents who intend to leave the valley declined substantially between the 1999 survey (31%) and the 2004 survey (19%). The 1999 survey included a question on racial and ethnic tensions. Whites who thought that racial and ethnic tensions were a “big problem” were among the most likely to intend to leave the valley, suggesting that white flight (white out-migration in response to increasing nonwhite populations) is a factor in some migration decisions. It is important to note that the large majority of whites who intend to leave the valley did not feel that racial and ethnic tensions were a big problem. In general, those who were most downbeat about past changes

³See Sandoval, Johnson, and Tafoya (2002) for data on neighborhood residential segregation in California.

⁴The foreign-born are also less likely to leave the valley for other U.S. locations, but we do not have information on emigration to other countries. The foreign-born might be more likely to return to their countries of origin than to other U.S. locations.

and pessimistic about future directions were more likely to intend to leave. Those who experienced economic difficulties and who thought the valley's economy was poor were also much more likely to intend to leave.

These data and our statistical models all provide strong evidence of the importance of job opportunities in migration decisions. As noted in Chapter 2, however, the Central Valley outside the Sacramento Metro region experiences chronically high levels of unemployment and poverty. The apparent conflict between strong population growth and poor economic outcomes in much of the valley can be explained by the relatively strong increases in the number of jobs in the valley. Even in the face of high unemployment rates, the valley has created large numbers of new jobs. Annual increases in employment generally exceed or at least match those seen in the rest of the state (Figure 4.1). Indeed, during the recession of the early 1990s and the downturn in the early 2000s, the Central Valley never experienced net job losses, and over the past dozen years, all its subregions experienced stronger job growth than the rest of the state (Table 4.2). Unemployment rates remain high



SOURCE: Authors' tabulations of California Employment Development Department, industry employment data.

Figure 4.1—Annual Percentage Change in Total Employment, 1990–2002

Table 4.2
Percentage Change in Total Employment
for Valley Subregions, 1990–2002

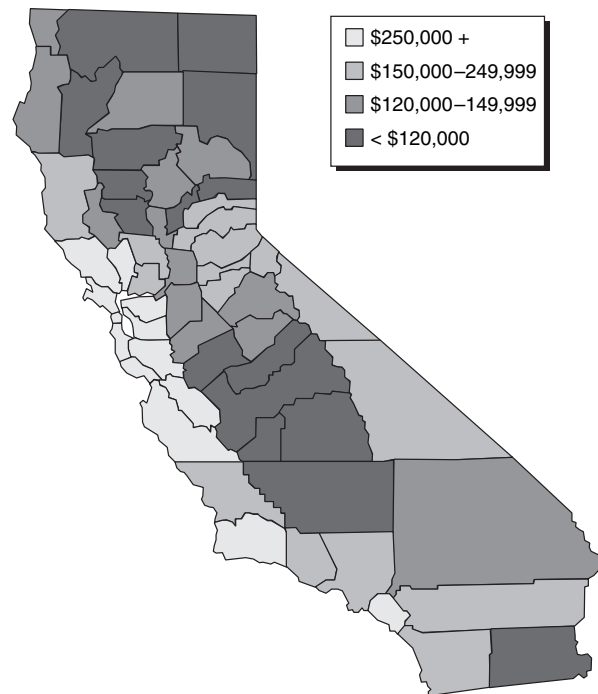
Region	
Upper Sacramento Valley	22.3
Sacramento Metro	34.9
North San Joaquin Valley	24.0
South San Joaquin Valley	22.0
Central Valley	26.9
California	15.3

SOURCE: Authors' tabulations of
California Employment Development
Department and industry employment data.

in much of the valley despite strong job growth, partly because of the cyclical nature of employment in one of the valley's key industries (agriculture). Again, the Sacramento Metro region stands out, with a job growth rate more than twice that of the rest of the state.

Another economic reason for migrating is to find affordable housing. Housing prices in the Central Valley are substantially lower than in coastal California (Figure 4.2). Although housing prices have risen dramatically since 2000 in the Central Valley, they have also risen substantially in coastal areas and the differential in prices has remained large. As a consequence, considerable numbers of migrants to the Central Valley cite housing factors as the most important reason for moving to the valley. Intrastate migrants to the Central Valley were most likely to cite housing as the lead reason (40%). Housing was an especially important factor in intrastate migration to the Sacramento Metro region and the North San Joaquin Valley. Over half of California migrants to North San Joaquin Valley counties cited housing as the most important factor. Many of these migrants were renters in coastal California who no longer wanted to rent.⁵ In contrast, only 18 percent of interstate migrants and 3 percent of foreign migrants to the valley cited housing as the primary reason. This, of course, is consistent with

⁵One housing-related reason coded for respondents was whether the move was because the respondent wanted to own his/her own home rather than rent.



SOURCE: Authors' tabulations of 2000 census data.

Figure 4.2—Median Housing Prices in California, 2000

housing cost differentials between the valley and these other locations. Even though housing in the Central Valley is inexpensive by California standards, it is not less expensive than in many of the out-of-state origins and destinations of interstate and foreign migrants.

The most important noneconomic reasons for migrating are family-related, including changes in marital status and the desire to live closer to family members. According to the CPS data, international migrants to the Central Valley were by far the most likely to cite family reasons as the primary factor in their decision to move to the valley (Table 4.1). This is not necessarily surprising, as U.S. immigration policy gives strong preferences to family members of U.S. residents. The strength of family ties also seems to keep international migrants from leaving the valley once they arrive. Our models indicate that foreign-born residents of the

valley are much less likely than people born in other American states to leave the valley for other locations in California or the nation. This is consistent with the geographic location of social networks for the two groups. Foreign migrants are less likely than people born in other states to have social networks that extend beyond their destination in the United States. Migrating for family reasons was more common among interstate migrants to the valley than among intrastate migrants. Perhaps intrastate migrants still feel close enough to family members as long as they remain in California. Our migration models of 2000 census data show that California-born residents of the valley are especially less likely to leave than are residents born in other states. This suggests that the social networks and family ties that arise over time in a specific location dampen the propensity to migrate. In other words, people do not want to leave home if they do not have to. Those most likely to stay in the valley are residents of the valley who were born in California.⁶

One clear reason people do leave home is to attend college. The substantial outflows of very young adults from both parts of the San Joaquin Valley along with the California Postsecondary Education Commission data presented in Table 3.11 show that many college-bound high school graduates in the San Joaquin Valley choose to leave the San Joaquin Valley to attend college. Our statistical models show that the probability of leaving the Central Valley is much greater among the youngest adults and high school graduates than any other age or education group. In contrast to the patterns in the San Joaquin Valley, the Upper Sacramento Valley attracts substantial numbers of college-bound high school graduates, and although the numbers are not as dramatic, the Sacramento Metro region also attracts more students to its colleges than it sends out to the rest of the state.

Finally, retirement-based migration is a small part of the overall flow of migrants to the Central Valley, but it is significant for some locales. In particular, the Upper Sacramento Valley and Sacramento Metro's suburban communities in the foothills of the Sierra Nevada draw

⁶We have information only on state of birth if born in the United States and country of birth for those born abroad; thus, we are not able to identify those who were born in the Central Valley.

substantial numbers of retirees. For these migrants, recreational amenities, low cost of living, and other quality-of-life considerations are more important than employment opportunities.

5. The Challenges Posed by Migration

Because migration flows and characteristics vary tremendously across the Central Valley's subregions, the implications of those flows for governments, businesses, and valley residents also vary. However, one common challenge of the migration flows is the strong population growth felt in all of the valley's subregions. Throughout the Central Valley, migration directly leads to population growth as more people move to the valley than leave from it. Because many migrants are young adults, migration also indirectly leads to population growth through increases in births. All parts of the valley are projected to remain among California's fastest-growing regions for decades to come. Thus, the Central Valley will need to meet the challenges that accompany such growth. Those challenges include building new schools and housing, supplying water and power, protecting the environment, preserving open space and farmland, alleviating traffic congestion, improving the economy, and providing all the social services required for a large and growing population.

In this chapter, we consider a few of the implications of migration for the valley's subregions. We examine those issues most closely related to migration rather than overall population growth. First, we discuss those implications and how they may differ across the valley's subregions. Because of the interrelationship between migration and economic outcomes, we then discuss economic development efforts in the valley. Finally, we note some implications of the migration flows for the delivery of social services, including education. To a large extent, our discussions rely on input we received from numerous local officials in the valley. Those officials generally provided us with their own institutions' experiences with respect to migrants. Of course, there are many challenges posed by migration and population growth that we do not

consider; our discussion is selective and represents a first step in assessing the challenges to policymakers and the role of government.

In the Upper Sacramento Valley, the primary challenge is to keep many of the region's young adults from leaving. Some are recent college graduates and could provide a highly skilled workforce. Keeping them in the valley will require economic opportunities for skilled labor, which are now relatively scarce. Although the Upper Sacramento Valley's migration patterns are unique in the valley, they are similar to those in other parts of the United States. Researchers and officials in New England, Ohio, Indiana, Wisconsin, and Minnesota have all noted the loss of recent college graduates from those areas.¹ Many regions have developed efforts to encourage recent graduates to stay. Whether they will be successful remains to be seen, but economic development is central to such efforts.

Another migration-induced challenge for the Upper Sacramento Valley concerns its rapidly aging population. Because of the loss of young adults and a substantial gain of older adults and retirees, the Upper Sacramento Valley is aging more rapidly than the rest of the state. Providing services to that population will pose challenges and opportunities. One opportunity is already evident in the region's high share of employment in the high-wage health care industry.

In the Sacramento Metro region, the great challenge of the large migration flows to the region will be managing the ensuing population growth. With its relatively high-skilled workforce and diverse economy, the Sacramento Metro region today is in many ways in the same position as California's large coastal metropolitan areas were several decades ago, and it can therefore learn from the successes and failures of those precursors. Local governments, regional nonprofit organizations such as Valley Vision and the Great Valley Center, as well as planning and regulatory bodies such as the Sacramento Metropolitan Air Quality Management District and the Sacramento Area Council of Governments have all devoted a great deal of attention to growth issues in the region. One area of particular concern is air quality, with the region experiencing some of the most serious air pollution in the nation. Solutions to these

¹See Wirtz (2003), for example.

and other issues will need to be found if the region is to maintain its quality of life as its population grows.

Like the Sacramento Metro region, the North San Joaquin Valley is experiencing rapid population growth, also fueled to a large extent by migration. Unlike the Sacramento Metro region, however, job growth has not kept pace with population growth. Instead, the region is increasingly becoming a bedroom community for the Bay Area. As such, the North San Joaquin Valley is similar to Southern California's Inland Empire.² Among migrants from the Bay Area, over half (51%) of those who moved to the North San Joaquin Valley still work in the Bay Area. In contrast, only 10 percent of Bay Area migrants to Sacramento Metro still work in the Bay Area.³ The North San Joaquin Valley's challenge, then, is to provide jobs for those workers in the North San Joaquin Valley and to alleviate the traffic congestion associated with large flows of long-distance commuters. The region's only operating public university—California State University, Stanislaus—seems underused, and many college-bound high school graduates are leaving the region. The opening of UC Merced to new students in 2005 will eventually have a dramatic effect on the migration of college-bound high school graduates in the state. This is welcome news for the region. For the region to fully capitalize on the opportunity that is presented by UC Merced, regional leaders must find ways to incorporate the university's graduates into an expanded, high-skilled local economy.

The South San Joaquin Valley faces a unique set of challenges. Its migrants, mostly international, are less educated and more likely than migrants to other subregions to live in poverty. Some observers view this migration to the South San Joaquin Valley as creating impoverished towns that are little more than overgrown labor camps. According to this view, the large pool of low-skilled, intermittently employed workers contributes to persistent low wages and high unemployment rates. This situation, in turn, requires public responses that serve as an indirect subsidy for agribusiness. Others see migration to the South San Joaquin

²The Inland Empire in interior Southern California consists of Riverside and San Bernardino Counties.

³Authors' tabulations of 2000 census data on currently employed migrants.

Valley as leading to revived towns, full of civically engaged people and entrepreneurial activities—in contrast to the rural plains, where agricultural towns are losing people, businesses, schools, and churches. In this view, the South San Joaquin Valley provides America's newest residents with a foothold in the United States and allows them to realize economic goals and successes.⁴ Still others see international migrants as filling an important economic function in taking agricultural jobs that native Californians are unlikely to take. Without them, California's agricultural output and communities would suffer. It is possible that all these views are correct. The future of the South San Joaquin Valley depends on the economic success of its immigrants but perhaps even more on that of their children. If so, the current patterns of migration are not encouraging. They show the South San Joaquin Valley losing college-bound high school graduates to other regions, and out-migration of college-educated adults. The South San Joaquin Valley, then, has the challenge of simultaneously meeting the needs of its large and growing immigrant population *and* providing opportunities for its more highly skilled residents.

Economic Development

This section presents an overview of the types of economic development efforts in the Central Valley and how they are shaped by the migration patterns identified above. Economic development actors throughout the Central Valley are employing a host of strategies for responding to the challenges posed by the various migration patterns observed in the region.

The first of these efforts is the fostering of value-added industries linked to agriculture. Historically, jobs in agricultural production have drawn international migrants, but the region suffers from high unemployment and low wages. This strategy attempts to provide more employment and higher wages in processing and in research and development of pre- and postharvest technology. Particularly in the San Joaquin Valley, counties and economic development corporations hope

⁴See Martin and Taylor (2000) and Palerm (2000) for an elaboration of these different views.

to build on the valley's chief industry, creating value-added industries and integrating vertically to generate higher-wage jobs. Although low costs (particularly in land, construction, and labor) continue to be a major selling point for employers considering locating in the region, economies of scale in supply and transportation may also exist to be exploited. If these efforts are successful, they may serve to absorb some of the low-skilled labor made available through migration into the valley and the continuing decrease in the labor-intensiveness of agricultural production.

Second are the efforts to diversify the valley's economy by attracting firms in manufacturing and services. Building on the region's advantages in low-cost labor and construction, this strategy addresses the need for more jobs for local residents including those still commuting to coastal cities for work. As strategists move away from agriculture and seek to relocate light manufacturing or service industries into the valley, the comparative advantage of physical proximity to agricultural production centers disappears. In soliciting call centers, electronics manufacturers, or data processing facilities, development agents offer a wide array of business incentives, including tax breaks, local hiring bonuses, expedited permit processing, and tariff waivers. Often these incentives come bundled as part of the special economic zones that have been established all over the valley: business incentive zones, enterprise zones, empowerment zones, commercial corridors, foreign trade zones, recycling market development zones, and redevelopment areas. These industries may provide jobs for families considering relocating to the valley from the Bay Area or other regions of the state. Whether they can provide a primary income source and thereby compete with other regions' industries will depend on the wage levels offered by the firms that eventually relocate.

Third, some communities in the Sacramento Metro region and the San Joaquin Valley are experimenting with developing a high-technology industry akin to that in Silicon Valley. In addition to capturing the tax revenue advantages of hosting a high-wage industry, this strategy aims to slow or even reverse the flight of skilled labor out of the region. The incentives these efforts offer to potential firms rely less on the low cost of doing business and more on the quality of the region's workforce. The

Sacramento Metro region, with its relatively well-educated population and local amenities, has already had some success with this strategy. To replicate this success, the San Joaquin Valley must not only generate a local workforce with the appropriate skills—an effort to which the opening of UC Merced will contribute—but also retain that workforce and halt the exodus of educated young adults out of the valley.

Finally, the success of any attempt at raising local wages will depend on the generation of human capital, whether through general education or specific job training. Public-private partnerships and other plans are under way in the valley to address the generally low level of education among residents.

Fostering Industry

The phenomenon of large-scale international immigration to the San Joaquin Valley for low-wage employment in agriculture is well documented. More recently, international migrants have been attracted to agricultural employment in the Upper Sacramento Valley. However, employment in agriculture has not kept pace with that in other industries; between 1990 and 2003, agricultural employment in the North San Joaquin Valley dropped by 2 percent compared with a 26 percent growth in employment overall. In the South San Joaquin Valley, where agriculture employs over three times as many people as in the north, agricultural employment grew by 8 percent over the same period, still falling short of the overall growth of 23 percent.⁵

Nonetheless, the North and South San Joaquin Valley regions have the highest percentages of employment in agriculture (9% and 17%, respectively; Table 2.2), and economic development efforts in these two regions naturally focus on expanding employment in this sector. The California Central Valley Economic Development Corporation (CCVEDC), in its efforts to improve employment opportunities in the San Joaquin Valley, has targeted several industry clusters, three of which relate directly to the agricultural sector.

⁵State of California, Employment Development Department Historical Estimates of Employment by NAICS [North American Industry Classification System] Industry (2004).

In their efforts to attract potential employers to the region, economic development agents frequently cite the valley's reputation as the most productive agricultural region in the world. However, increasing the number of low-wage crop production jobs is infrequently stated as the goal of regional development efforts. According to the Stanislaus County Economic Development and Marketing Plan,

[T]he long term trend in this industry is, however, toward increased use of capital (relative to labor) in production. This means that even while maintaining, and possibly increasing, its position as a large scale supplier of agricultural goods, overall agricultural employment in Stanislaus County is likely to remain flat or decrease and the jobs that remain will require (on average) higher skill levels and new skill sets.⁶

The Farmworker Institute for Education and Leadership Development (FIELD) helps farmworkers keep up with these changing labor requirements by upgrading and diversifying their skills, thereby increasing the value of their labor. Furthermore, FIELD seeks to improve the stability of employer companies, including enhancing workplace safety by demonstrating to employers the cost of workforce injuries.⁷

Local and regional economic development corporations are emphasizing the role of vertical integration within agriculture as a means of increasing employment and improving wages in this vital industry in the valley and of expanding its links to the local economy. A first step is to foster the creation of a local value-added food processing industry. Currently, plants outside the region perform most of the value-added processing for Central Valley crops. The CCVEDC emphasizes the advantages—quick turnaround, plus low costs of land, labor, facility construction, and local transportation—of processing locally.

Several counties are pursuing such industries. In Stanislaus County, the Agri-Sciences Industry Cluster (the cornerstone of the economic

⁶ESI Corp. Strategic Planning Team (2003).

⁷Telephone communication with Paul Saldaña, Tulare County Economic Development Corporation Director, July 21, 2004.

development plan) suggests promoting current industries that manufacture food containers and food products, while encouraging the development of new industries that produce packaging machinery and food products machinery. (In another take on developing enterprises related to agriculture, the county is also home to the Ag Pavilion Learning Center and Museum, to be housed in Modesto in 2006; it is hoped that this initiative will promote agricultural tourism in the region.) In Fresno County, the I-5 Partnership for Commerce is focused on transforming the primarily agricultural economy of the region into “a center for the processing and distribution of food and fiber products.”⁸ Kern County has identified value-added agriculture as a target industry cluster, playing host to processing and packaging facilities run by such companies as Frito Lay, Nestlé, and General Mills/Pillsbury.

Not all of the agriculture-related enterprises focus on the low-skilled end of the spectrum. In Fresno County, the University of California Kearney Agricultural Center and the San Joaquin Valley Agricultural Sciences Center are researching pre- and postharvest technology for selected crops and improved varieties, integrated pest management, and environmental considerations. This research involves a high-tech, longer-term approach to strengthening the agricultural industry. The Central Valley Postharvest Newsletter, published by the Kearney Agricultural Center, “currently reaches 1,647 domestic and 346 overseas growers, shippers, handlers, packers, buyers, receivers, store managers, and university personnel.” CSU Stanislaus recently established an Agriculture Studies Department that will address the valley’s need for highly skilled persons in the workforce in general and in agriculture specifically. Stanislaus County is focusing on establishing testing laboratories for dairy products and manufacturing enterprises related to the food processing industry.⁹ Wages are higher in these value-added industry jobs than they are in production jobs, but the counties seeking these industries’ participation tout low factor costs as a key incentive.

⁸Council of Fresno County Governments (2004).

⁹Telephone communication with Doug Sweetland, Stanislaus Economic Development and Workforce Alliance, Director of Economic Development, August 10, 2004.

The strategy is likely to be only an incremental step toward the more capitalized agricultural economy referred to above.

The CCVEDC has also identified linkages between the plastics and light manufacturing industries and agriculture in the form of packaging and shipping material—another example of an attempt at vertical integration of the agricultural industry in the region. Furthermore, it envisions interfirm collaboration and economies of scale in suppliers, inputs, and transportation. Kern County has adopted this approach and now hosts a variety of plastics and light manufacturing facilities.

These intermediate efforts to draw employment into the San Joaquin Valley also include applications outside agriculture. In these examples, the evident comparative advantages are, again, the region's low costs of labor, land, and construction. In Kern County, the massive Tejon Industrial Complex emphasizes the low cost of local labor and housing, as well as its location at a major crossroads, in its attempt to draw distribution centers. IKEA, Target, and Sears have established distribution operations in the area.¹⁰

The Fresno Regional Jobs Initiative (RJI) is a public-private partnership that aims to strengthen and diversify the area's economic base by creating between 25,000 and 30,000 net new jobs with an average annual salary of \$29,500 by 2008. This effort has identified seven initial industry clusters to target for expansion: health care, agile manufacturing (of products subject to short production runs and/or frequent changes in configuration), information processing, logistics and distribution, water technology, construction, and tourism.¹¹

As the targeted industries become more sophisticated, however, the interface with migration may change. Whereas agricultural production or entry-level service jobs may serve mainly as a draw for unskilled immigrants from other countries or other parts of the state, manufacturing or intermediate-level service jobs requiring some training may also encourage some workers to stay in the valley rather than move out in search of employment. Additionally, in the case of the North San

¹⁰Telephone communication with Pauline Larwood, Smart Growth Coalition of Kern County Executive Director, July 21, 2004.

¹¹Fresno Area Regional Jobs Initiative (2003).

Joaquin Valley, these industries may provide supplementary or alternative employment to families of local workers currently commuting to the Bay Area.

The CCVEDC emphasizes the establishment of call centers, data processing and computer centers, and fulfillment centers, which provide services such as inventory management, returns processing, and e-commerce assistance. It views these industries as potentially attractive to the large commuter workforce that has migrated to the valley for its affordable housing while retaining jobs in the Bay Area. The plan is that employers will act on the low cost of building and the telecommunications infrastructure and potential employees will rise from the ranks of those workers currently commuting. However, this strategy assumes that local wages will be high enough to compete with those in the Bay Area. To the extent that workers are commuting to similar, low-skill jobs, this strategy may be successful, and the valley will capture the benefits of having its residents work in the same communities in which they live. But professionals and managers working in the Bay Area may be unwilling to accept a much lower wage to work closer to home.

The Stanislaus Economic Development and Workforce Alliance is conducting a study of the commuter population, attempting to determine which industries could feasibly be developed closer to home. Preliminary findings suggest that there is substantial variation in the types of jobs that commuters hold. For instance, while Stanislaus County may not be able to compete with Silicon Valley industries in attracting and retaining highly trained people, it may be able to draw those who are currently commuting to retail or management jobs in the Bay Area.¹²

Even if a primary wage earner continues to commute, other family members may take part-time or entry-level jobs in service industries. This option may encourage movement to the valley if the availability of a nearby supplemental income source enters into the family's calculations in deciding whether to relocate.

¹²Telephone communication with Doug Sweetland, Stanislaus Economic Development and Workforce Alliance, Director of Economic Development, August 10, 2004.

Expectations are high among some economic development professionals for the emergence of an indigenous high-technology industry in the San Joaquin Valley, including software and hardware development. Various federal and state programs have funded exploration of its feasibility, and there is hope that the opening of UC Merced will lend valuable expertise to the effort. The mission of the Fresno Area Collaborative Initiative is “to help improve the Fresno region’s competitiveness by providing steward leadership in areas critical to success in the knowledge-based, new economy.”¹³ Such an industry could ameliorate substantially the brain drain effect noted above (Figure S.4) and even reverse it if high-paying jobs begin to draw professionals from outside the region.

There may be a precedent for such a spontaneous development of a high-wage industry in the Central Valley. The Sacramento Metro region has the highest levels of employment in the Professional and Business Services and Information sectors (Table 2.2), in part reflecting the recent establishment of a high-tech industry there. Intel, Hewlett-Packard, Electronic Data Systems, DST Output Customer Management Software, and Apple Computer appear in the top 25 nongovernmental employers in the region in 2004, together accounting for over 17,000 employees.¹⁴ The Sacramento Metro region has successfully recruited highly skilled workers from other regions and abroad; it also looks overseas to attract employers from Japan, Germany, and the United Kingdom. Of course, the Sacramento Metro region has advantages, such as the capital and a deep-water port, that boost its employment in other highly remunerative industries such as government and trade, transportation, and utilities. These particular advantages are not subject to replication by other regions hoping to emulate its success in attracting employers. Another advantage is that the region’s colleges and universities draw students from around the state, and these students tend to stay. Advantages aside, the region’s fastest employment growers from 1997 to 2002 were the construction sector (76%) and the information sector (32%).¹⁵

¹³Fresno Area Collaborative Regional Initiative (2004).

¹⁴Sacramento Area Trade and Commerce Organization (2003–2004).

¹⁵Sacramento Area Trade and Commerce Organization.

The Upper Sacramento Valley region has the highest proportion of income accruing to the Educational and Health Services Sector (14%). The economic development corporations operating in that region have stressed the attraction of small businesses on the one hand—with a variety of business incentives including small-scale financing and public-private partnerships—and large-scale projects on the other, most notably the location of an unmanned aircraft development mission at Beale Air Force Base and the construction of a 20,000-seat amphitheater and the Yuba County Motorplex for auto racing.

Construction has also been an important factor in attracting residents to the region—the 12,000-home Plumas Lake Specific Plan in Yuba County could house over 36,000 residents, and the South Sutter Industrial Park would be one of the largest industrial areas in the state north of San Francisco.

Workforce Development

Regardless of the strategy selected to bring jobs to a particular region, appropriate training of the local population is necessary if the objective is to fill those jobs with local residents. Some of the strategies discussed above run the risk of introducing a training mismatch between job requirements and local labor availability. The *Rural Migration News* gives these two examples:

Fresno County has 6,400 call center and data processing jobs and expects more, as call centers move into the area to take advantage of workers eager for jobs that generally pay \$7 to \$9 an hour. Many employers nonetheless complain of labor shortages at all rungs of the job ladder. One expert noted that half of the unemployed in many San Joaquin Valley counties have not completed high school.¹⁶

At the north end of the San Joaquin Valley, Shasta County, with a labor force of 73,000, in 1996 launched a \$3-million effort to attract high-tech businesses that pay \$15 an hour. So far, 10 companies and 270 jobs have come into the county, but the average wage is \$12. Several high-tech firms lamented the fact that only 14 percent of residents 25 and older have college degrees—compared to 23 percent in California and 33 percent in Silicon Valley—and that there

¹⁶Martin (2001).

was not the network of suppliers and repair services in the northern end of the San Joaquin Valley.¹⁷

State and local efforts have attempted to rectify this mismatch through general education and job training. The state's Employment Training Panel (ETP) works on the labor supply side of efforts to attract and retain businesses in California by retraining incumbent workers and funding training for unemployed workers. Kern County has begun offering training at the high school, community college, and trade school levels in plastics and light manufacturing.

Also in Kern County, the Mexican-American Opportunity Foundation (MAOF) is successfully training and placing workers, particularly those with little U.S. work experience, in existing jobs. Its occupational skills program includes bookkeeping and accounting, business administration training, and medical assisting. MAOF also provides adult work experience, for instance, short-term placement in nonprofits or government, and works with the Department of Human Services, preparing people to leave welfare.

Often, the initial obstacle to these workers' integration into the labor force is a lack of English skills or literacy. MAOF runs a reading program for Spanish speakers, preparing them to take advantage of existing courses in English as a Second Language and other training programs requiring literacy. In other instances, international immigrants arrive with significant training and work experience in professional fields but are unable to work in their professions because of differences in credentialing between their home countries and the United States. Where, for instance, trained nurses from Mexico are working in minimum wage jobs in the United States, MAOF refers them to local colleges where their prior training and experience counts toward completing their certification.¹⁸

Public-private partnerships are forming to provide job-specific training in particular industries. Fresno County agreed in 2000 to pay

¹⁷Martin (1998). Note that our regional categorization places Shasta County well outside the San Joaquin Valley.

¹⁸Telephone communication with Magda Menendez, Mexican-American Opportunity Foundation, August 10, 2004.

Lockheed Martin IMS \$8.6 million to train and employ more than 4,500 unemployed workers in the region. An organization called Proteus, Inc., is also training workers in various industries as part of welfare-to-work services in Fresno, Kings, Tulare, and Kern Counties.

Social Services

Migration into the Central Valley puts pressure on the county and local governments charged with providing social services, particularly where the new arrivals are poorer, less educated, or less healthy than those people leaving. Of course, population growth of any kind increases the demand for transportation infrastructure, water provision, and housing; the brief discussion below touches on the social services challenges posed by the particular nature of migration in the distinct Central Valley regions. Those migration flows are largely a product of an underlying economy that pays low wages, offers intermittent employment, but still experiences substantial growth in new jobs. The challenges presented by these migration flows, then, are also the challenges of providing a robust economy with good jobs as well as social services to impoverished populations.

Welfare

California's counties administer the payment of federal welfare benefits—TANF—under the state's California Work Opportunity and Responsibility Kids (CalWORKs) program. The extent to which migration affects the Central Valley counties' welfare responsibilities varies with the characteristics of the migrants as well as those of the local economy.

Higher-than-average welfare payments have often been cited as a draw for indigent migrants from other states to California. Within the state, however, housing costs frequently drive migration decisions. In Tulare County, for instance, welfare payments are actually lower than in some sending regions of the state, but its even lower cost of living continues to make it an attractive destination. Although many international immigrants are ineligible to receive welfare, many others are eligible. For example, many Southeast Asian immigrants are eligible because of refugee status or other circumstances surrounding their

immigration. Other undocumented immigrants, even if they have no special status and are ineligible to receive federal cash assistance, are still eligible for many county services.¹⁹

Even when recent international immigrants are ineligible to receive benefits themselves, they may have U.S.-born children or other relatives who qualify. However, takeup rates are often low because of a lack of knowledge of the benefits, unfamiliarity with the application process, or, in the case of undocumented immigrants, concern about detection by authorities.

Philip Martin notes that in Yuba and Sutter Counties, most welfare recipients are non-Hispanic whites, leading to a number of alternative theories about their overrepresentation on the rolls. According to one such explanation, “[S]ome local observers note that Mexican immigrants seem to be moving into the Sacramento Valley to take jobs that long-time residents shun, including reforestation.”²⁰ However, in the seasonal wage-labor economy in which many of the San Joaquin Valley’s international migrants work, the work mandates of the 1996 welfare reform are particularly difficult to meet. Thus, a dependence on cash assistance may persist among this population, even in the presence of employment, and the intended goal of the reform—to move people off welfare and into the workforce fulltime—appears to be more difficult to achieve in such an agricultural economy.²¹

In October of 1998, Tulare County implemented a program to assist welfare recipients in their search for employment, housing, child care, and schools, while reducing its own welfare payments. As part of the program called More Opportunities for Viable Employment (MOVE), the county’s Health and Human Service Agency (HHSA) helps participants move away from Tulare to places with more job opportunities. MOVE helps communicate with employers outside the county and sends out résumés for jobs. Once a destination has been

¹⁹Telephone communication with Ronald Probasco, Tulare County Health and Human Services Agency Director, July 27, 2004; California Welfare Institutions Code, Section 17000.

²⁰Martin (1999).

²¹Green, Martin, and Taylor (2003).

established, MOVE pays for relocation expenses and startup costs and provides followup job retention services for six months after the move. The HHSA reimburses MOVE for these expenditures—typically \$2,000 to \$3,000 per family—while removing each family from its welfare rolls. During its first three years, the program reduced its welfare payments by approximately \$3.5 million per year.²² Since its inception, the MOVE program has helped relocate at least 1,000 families and has since expanded to Kings, Fresno, and Madera Counties.

That such a program exists highlights some of the challenges faced by the valley as a result of migration flows. As noted above, high costs of living push some of the poor out of California's coastal areas to the Central Valley; the valley also attracts large numbers of low-skilled international migrants. Moreover, increased border enforcement along the Mexico-U.S. border appears to have decreased return migration (Reyes, Johnson, and Van Swearingen, 2002). With an influx of low-skilled migrants and an economy that offers jobs with below-poverty incomes, one obvious response has been to help welfare recipients leave the valley.

Education

Although seasonal migration appears to have abated in the South San Joaquin Valley in recent years, it remains a big challenge for schools, particularly in the North San Joaquin Valley. The Modesto School District's mobility rate—the proportion of students transferring between schools during the year—hovers around 30 percent.²³ The Migrant Education Program helps school districts and students minimize the resulting disruption in the educational process. This assistance may take the form of funding supplementary teachers, extra reading programs, or summer sessions.

Even for immigrant children who remain in school for the entire year, the unfamiliar language and school system may present obstacles. Operating on the observation that parental involvement is often key to

²²Nieves (2001).

²³Telephone communication with Lynn Jamison, Director of State and Federal Programs for Modesto City Schools, August 9, 2004.

students' academic performance, the Parent Institute for Quality Education (PIQE) works to integrate parents from foreign cultures into the local school districts in Modesto and Fresno, among other locations. Operating in the language most commonly spoken by district parents—usually Spanish—the PIQE encourages parents to get involved with homework, solicits their expectations about their children's achievements, and invites volunteer activity. In many cases, this is a radical departure from educational norms prevailing in the home country, where teachers hold a place of honor and are left alone to educate the children as they see fit. Parents, many of whom have limited education themselves, receive a diploma at the end of the course. Since opening a pilot office in Modesto in 1997, the local chapter of PIQE has expanded to 21 school districts and has graduated more than 8,000 parents from its program.²⁴

At higher levels, local educational institutions are cooperating with businesses to coordinate training needs. Modesto Junior College (MJC) has worked with local companies to provide relevant Saturday training sessions, CSU Stanislaus has coordinated with Gallo wineries to design accounting and computer skills curricula, and Valley Business High School has been established as a business-themed charter school. Students complete a standard high school curriculum in addition to a business supplement. To graduate, a student must line up a job or enroll in further technical training. Fresno has established a similar school after observing the success of the Modesto model.²⁵

Summary

Policymakers in the valley's subregions must address not only the common problems of high unemployment and population growth but also the particular characteristics of these difficulties as they are shaped by migration into and out of their counties and metropolitan areas. The

²⁴Telephone communication with Teresa Guerrero, Director, Parent Institute for Quality Education, Modesto Office, August 18, 2004.

²⁵Telephone communication with Kenni Friedman, Sutter Health Board of Directors, July 26, 2004.

variety of strategies and programs undertaken testifies to the diversity of challenges presented by these disparate migration patterns.

Agriculture has long been the dominant industry in the valley and, particularly in the San Joaquin Valley, other industries have only recently begun to play an important role in economic development planning. Thus, some of the most ambitious strategies for diversifying the valley's economy are just now being implemented. In the very near future, we will begin to be able to evaluate the success or failure of this collection of efforts to develop high-wage industries and reverse the loss of high-skilled workers.

6. Conclusion

The Central Valley is at a pivotal point in its development. Substantial portions of the valley have already been transformed from rural agricultural areas to large urban and suburban communities. In the future, even more of the valley will experience this transformation. Within the next 20 years, the Fresno, Bakersfield, and Stockton metropolitan areas will each surpass one million residents, and the Sacramento metropolitan area will surpass three million residents.¹ Migration has been and will be a driving force behind the population growth. That growth will lead to environmental, economic, social, and even political challenges.

The valley's residents are already aware of such challenges. Asked to name the valley's most pressing current issue, more valley residents identified air quality than any other issue (Baldassare, 2003). Looking ahead to the future, valley residents identified "population growth, development, and sprawl" as the most important issue facing the valley to 2025 (Baldassare, 2003). A forthcoming PPIC report graphically illustrates the magnitude of future development that is likely to occur in the San Joaquin Valley (Teitz, Dietzel, and Fulton, forthcoming 2004). In a series of maps that project the location of new urban development, that work shows the large-scale urbanization that will transform much of the San Joaquin Valley.

The effects and consequences of migration flows and patterns are not the same across the valley's subregions. For example, the Sacramento Metro region gains relatively well-educated migrants, whereas the Upper Sacramento Valley and South San Joaquin Valley lose college graduates. The North San Joaquin Valley is increasingly serving as a bedroom community to the Bay Area, and the South San Joaquin Valley may soon

¹Based on authors' tabulations of California Department of Finance projections (2004 series).

experience large-scale growth as the suburbs of Los Angeles County spread northward. The growth is already evident in new towns being planned for the valley. The web page of Mountain House, a new development in San Joaquin County planned to be home to over 40,000 people, describes it as “the Bay Area’s most convenient and comprehensive new hometown.”² The spread of the Bay Area into the North San Joaquin Valley is evidenced by the increased traffic and commuter rail link between the two regions. In southern Kern County, the partially developed Tejon Industrial Complex is expected to provide jobs for some residents of a new town of over 20,000 homes that has been proposed by the Tejon Ranch Company for the Grapevine area in northern Los Angeles County. High-speed rail could lead to even more commuting from valley homes to coastal jobs.

Historically, the valley has been able and at times even eager to accommodate new developments and population growth. In our review of several surveys of local officials, we find that, in general, local governments in the Central Valley are considerably more likely to promote residential and commercial growth and less likely to adopt slow-growth policies, which are more common in other regions of the state (see Appendix B for more discussion).³ Likewise, residents of the Central Valley do not display the same popular opposition to growth that can be seen throughout the San Francisco Bay Area and in pockets of Southern California. Measured by both resident attitudes and ballot measure activity, Central Valley residents are far less likely than residents of other regions in California to limit growth in their area. At the subregion level, Sacramento Metro appears to be much more engaged in managing growth and much more likely to adopt slow-growth measures than are other parts of the Central Valley. Upper Sacramento Valley and South San Joaquin Valley residents appear to be the least likely to actively pursue growth-management policies. Many North San Joaquin

²Mountain House (2004).

³Those surveys of city growth-control policies and practices include 1988 and 1992 Glickfeld and Levine surveys, the 1998 UC Berkeley/California Department of Housing and Community Development survey, the 1998/1999 PPIC survey, and the 1998 Governor’s Office of Planning and Research survey.

Valley cities do have growth-management policies in place, but many of these policies are more likely to promote growth than hinder it.

Continued large flows of migrants into the valley could change such attitudes toward growth. Recently, for example, Tracy voters passed a measure to limit new residential construction, and Modesto voters passed a resolution that urges the Stanislaus County Board of Supervisors to direct all urban growth to incorporated cities. A 1999 PPIC survey found that a majority of all Central Valley residents felt that the quality of life in the valley would be improved if growth was restricted to existing suburban and urban areas (Baldassare, 1999). A large majority (72%) also thought that protecting farms and agricultural land would improve the quality of life.

To a large extent, the migration flows reflect the underlying economies of the Central Valley, but they also respond to policies and economies in coastal California and international policies regarding immigration. The problems posed by these migration flows and the challenges of developing successful local economies will not be solved easily. The valley is at a critical point in its development, with new large-scale urban development transforming the economy and population of the valley. The decisions made today by valley leaders—decisions about economic development, education and workforce development, social services, and managing growth—are likely to have far-ranging consequences.

Appendix A

Data and Methods

We use existing surveys and administrative data to measure recent trends in both domestic and international migration to and from the Central Valley and its subregions. We examine migration flows as they vary by standard demographic characteristics as well as by socioeconomic characteristics. Demographic characteristics considered include race and ethnicity, nativity (immigrant generation), gender, and age. Socioeconomic characteristics examined include educational attainment, language, labor force status, income, public assistance use, and occupation. Among the foreign-born, we analyze whether migration patterns vary by citizenship status and length of stay in the United States.

Data

Our use of many data sources permits a portrait of migration patterns that is both comprehensive and timely. To examine migration flows and patterns, we use data from the 2000 census, the annual CPS, the Central Valley surveys conducted since 1999 by PPIC in collaboration with the Great Valley Center, student data from the California Postsecondary Education Commission (CPEC), and the IRS's county-to-county migration files. In addition, we use data from the California Employment Development Department to consider industrial and employment changes in the valley over time. None of these datasets is perfect. Some do not capture the entire population (e.g., the IRS data), and others have limited sample sizes (e.g., the CPS). The 2000 census data are detailed and provide large samples but are somewhat dated. Below, we discuss each of these datasets in more detail.

The 2000 census provides the most comprehensive data on migration. We rely primarily on the "county-to-county migration" files and the Public Use Microdata Sample (PUMS). The county-to-county migration files are derived from the full long-form sample of the census given to about one in every six households in the United States.

Respondents answered detailed socioeconomic and demographic questions, including one on where household members lived five years before the census. The county-to-county migration files consist of a series of tables produced by the U.S. Census Bureau that show flows into and out of valley counties. Some tables provide both counties of origin and destination. However, we are restricted to the types of characteristics provided in the summary tables developed by the U.S. Census Bureau, and many characteristics of interest are not included in the bureau's tables. The PUMS data, based on a one in 20 sample of all households in the United States, and thus about one-third of all long-form households, provide individual records and therefore allow us to develop our own custom tabulations. The smaller sample size of the PUMS relative to the county-to-county migration files is a disadvantage but not a serious one. Some smaller counties cannot be separately identified in the PUMS. Sutter and Yuba Counties are combined, as are Colusa, Glenn, and Tehama Counties.¹ The primary disadvantage of the census data, both the county-to-county files and the PUMS, is that they are somewhat dated.

The March supplement of the annual CPS provides timely information on migrants who have moved to the valley in the past year. The CPS is a household survey that asks respondents a large number of demographic and socioeconomic questions, including where respondents lived one year before the survey.² The public use files of the March CPS allow us to access information for individuals, families, and households. We use data from the 1981 through 2003 surveys. Thus, the primary advantages of the CPS are its long history and broad range of questions about individual demographic and socioeconomic characteristics. However, the CPS has three significant disadvantages in studying migration. First, geographic coverage has varied over time. Before 1985, only the Sacramento Metro region could be identified in the CPS.

¹An added disadvantage is that Trinity County is not in the Central Valley but is grouped with Colusa, Glenn, and Tehama Counties in the PUMS. This is not a serious problem. Trinity County is very lightly populated, with only 13,000 people in 2000, and its migration flows are overwhelmed by those of the other counties in the region.

²In 1985 and 1995, the CPS asked respondents where they lived five years before the survey.

Second, sample sizes are small, especially for subregions of the valley and for movers. In recent years, the CPS has included almost 2,000 residents of the Central Valley, although sample sizes before 1995 were only about 1,200. Slightly less than 10 percent of respondents move each year, on average, and therefore samples of movers are substantially smaller. We combine years of the CPS to increase sample sizes. Finally, and perhaps most important, it is not possible to identify out-migrants from the Central Valley using the CPS. CPS geographic coding of migrants does not provide information on counties of origin, only on states of origin. Thus, we know if a current resident of Nevada moved *from* California, but we do not know where in California. Information on the type of move—from abroad, from another state, from another county in the same state, and within the county—is provided, so we are able to identify specific types of migration flows *to* valley counties.

The IRS tax return data provide another timely source of information on migration. The data are developed by the Internal Revenue Service by matching tax returns for consecutive years and comparing addresses. Records are matched using Social Security numbers and names of the principal filers. The IRS produces summary files of county-to-county migration flows. The flows provide both the number of returns as well as the number of exemptions. (Exemptions serve as a proxy for the number of people in the family.) Annual flow data are available from 1984 through 2003. Since 1993, the IRS has provided information on incomes. No other characteristics of the migrants are available. The primary concern regarding the IRS data is its lack of coverage. Persons or families who do not file returns for two consecutive years cannot be matched and are excluded from the data. Thus, low-income individuals (including students) and low-income families are more likely than other groups to be missed. Newly formed households are also likely to be missed. Because the IRS matches on the primary filers' Social Security number and name, any name changes—such as those associated with marriage or divorce—will also prevent a match.

The California Postsecondary Education Commission provides information on the high school origins of public college students in California. The data we use focus on first-time freshmen enrolling in the

UC, CSU, and community colleges. The data are obviously narrow, but they are up-to-date and detailed, providing the ages and the race and ethnicity of the students. California high school students who leave the state or attend private colleges are excluded, although the data do include graduates of private high schools in the state.

The PPIC Central Valley surveys conducted in 1999 and 2004 asked residents whether they intended to move out of the region in the next five years. The telephone survey of about 2,000 adults allows us to consider how personal characteristics and attitudes about the region affect migration intentions. Of course, migration intentions are not always, or perhaps even not often, realized. We have no way of knowing whether respondents will act on those intentions. Still, the PPIC surveys provide us with a set of possible factors that motivate migration out of the valley.

Statistical Models of Migration

To consider factors most strongly associated with migration, we develop a series of statistical models. In our approach, the probability of migrating is modeled as a function of a host of demographic, social, and economic characteristics. Because our dependent variable of interest is binary (moved or did not move), we use logistic regression. We use individual records from the 2000 census PUMS and identify in-migrants as those who lived outside the Central Valley five years before the census (1995) and out-migrants as those who lived in the Central Valley in 1995 but elsewhere in the United States in 2000. We are not able to identify emigrants (migrants to locations abroad) from the Central Valley.

We develop separate models for migrants to the Central Valley and migrants from the Central Valley. In addition, because underlying macroeconomic characteristics and geographical proximities to large coastal populations vary, we develop separate models for each valley subregion. We include demographic, social, and economic characteristics of the migrants and nonmovers as well as measures of the area of origin and destination, namely, employment rates and housing

values in the PUMA of origin and destination.³ These characteristics and measures are determined at the time of the 2000 census. The data do not allow us to determine those characteristics in 1995. Findings of the models are discussed in Chapter 4. Tables of the regression results are available from the authors.

³PUMA is a census acronym for a public use microdata area. These geographic areas are home to about 100,000 residents.

Appendix B

Central Valley Attitudes About Growth

In many coastal areas of California, migration-induced population growth has led to the adoption of measures, plans, and policies designed to restrict new growth. Such efforts have been most apparent in the Bay Area and parts of Southern California. As the locus of rapid and large-scale population growth in California shifts to inland areas of the state, the question arises whether the Central Valley will begin to adopt slow-growth efforts in response. Those efforts could affect migration to the valley, either slowing or redirecting flows. To assess the valley's responses to rapid population growth, we combined and analyzed five datasets that identified growth-management tools in California localities: the 1988 and 1992 UCLA surveys, the 1998 UC Berkeley/HCD survey, the 1998/1999 PPIC survey, and the 1998 OPR survey. Together, these datasets provide us with a deep, although not complete, understanding of the use of growth-management tools in California cities and counties. The combined dataset distinguishes among 21 tools grouped into eight categories. However, it is difficult to make meaningful comparisons among many of the tools. Each community adopts a tool in its own spirit and implements it in its own ways. As a result, a tool that is used by one community to slow growth may be used by another in a more neutral manner.

At first glance, the Central Valley appears to be similar to most other California localities: It averages 3.4 growth-management tools per locality compared to the state average of 3.5; it averages 3.1 slow-growth tools, the same as the state average; and the Central Valley averages 0.4 pro-growth tools, compared to the state average of 0.3 tools (Table B.1). However, not all these tools are equal, and those most commonly used in the Central Valley appear to either favor growth outright or to be less likely to meaningfully reduce development.

Table B.1
Percentage of California Cities with Growth-Management Tools, by Region

Type of Growth Management Tool	Central Valley (N=118)	S.F. Bay Area (N=109)	L.A. Area (N=184)	Other (N=121)	Total (N=532)
Housing/population caps	14	21	14	17	16
Housing	10	16	12	16	13
Population	6	13	8	8	9
Commerical/industrial limitations	46	71	59	47	56
Commercial square footage	5	16	6	9	9
Industrial square footage	1	7	4	6	4
Commercial building height/FAR ^a	46	67	58	45	55
UGBs	43	42	9	31	28
UGBs	43	42	9	31	28
UGBs (for jurisdictions not limited by area)	43	54	11	38	33
Infrastructure adequacy requirements	56	60	52	47	53
Residential infrastructure	53	58	52	41	51
Commercial/industrial infrastructure	42	41	35	38	38
Zoning	41	54	58	47	51
Residential downzoning	24	37	48	34	37
Residential rezoning	19	20	14	14	17
Commercial/industrial rezoning	15	24	19	13	18
Upzonings	12	18	11	17	14
General growth-management elements	18	30	20	19	21
Growth management	15	29	18	17	20
Subdivided lot restriction	5	6	4	5	5
Vote requirements	3	11	7	9	7
Voter approval	2	10	7	9	7
Supermajority	1	1	0	1	1
Other measures	43	37	30	36	36
Annexation restrictions	8	5	4	2	5
Annexed land in the past five years	43	24	16	21	25
Residential fee increases	12	10	3	9	8
Other	14	14	20	18	17
Total no. of measures	380	455	595	380	1810
Average no. of tools per locality	3.4	4.3	3.3	3.3	3.5
Average no. of pro-growth tools	0.4	0.4	0.2	0.3	0.3
Average no. of slow-growth tools	3.1	3.9	2.9	2.8	3.1

^aFAR = floor-to-area ratio.

Perhaps the clearest measure of growth is annexation—the actual expansion of a city. Central Valley cities are significantly more likely than cities in any other California region to have recently annexed land (43% of Central Valley jurisdictions as opposed to 25% statewide). Central Valley localities are significantly less likely to engage in policies that have been proven to actually decrease growth (Levine, 1999), namely, residential caps, commercial caps, and downzoning. On all three of these measures, the Central Valley is considerably less likely to adopt growth-management tools. When considering only cities that have room to expand, Central Valley cities are less likely than Bay Area cities to adopt an urban growth boundary (UGB), but still more likely than cities in the rest of California. Levine (1999) did not find UGBs or infrastructure requirements—another tool that Central Valley localities were more likely to employ than those in the rest of the state—to be an important factor in reducing housing construction.

Citizen and city council attitudes about growth tend to be more favorable in the Central Valley than in other regions of the state. A 1999 survey of city planners jointly conducted by the University of California, Riverside, and PPIC shows that residential growth issues are not as hotly contested in the Central Valley as in other parts of the state (Table B.2). Residents of the Central Valley are less likely to use the ballot, pressure their city councils, or affect a change in growth policy than are residents in the San Francisco Bay Area, Los Angeles region, or other parts of California.

Residents of the Central Valley used the ballot initiative to decide land use policies significantly less often than residents in other California regions. Using Solimar Research data containing 671 statewide ballot measures from 1985 to 2000, we found that only 20 percent of Central Valley cities voted on a growth-management measure compared to 61 percent of Bay Area residents, 40 percent of Los Angeles region residents, and 32 percent of other Californians. Initiatives that made their way to the ballot in the valley were more likely to be pro-growth oriented and less likely to be slow-growth oriented than in other regions: Forty-six percent of initiatives in the Central Valley were for pro-growth measures compared to 34 percent in other California areas. Finally, the Central Valley was the only region where rates of passage for both pro- and slow-

Table B.2
Percentage Distribution of City Planners Reports of Attitudes About Growth

Attitude	Central Valley	Rest of California
Ballot initiatives are not seen as a major source of policy to slow residential growth	96	80
Important policies affecting residential growth have been enacted by the city council without much neighborhood pressure	68	44
Growth issues are considered not at all controversial	28	16
Residential development issues hardly ever affect local elections	51	35
The general attitude of the city council appears to encourage growth	58	38
Citizen opposition to growth appears not at all important in constraining or slowing residential development	31	18
City council opposition to growth appears not at all important in constraining or slowing residential development	44	30

growth measures were less than 50 percent (33% and 41%, respectively). Using a somewhat similar definition of the Central Valley region, Nguyen and Fulton (2002) found that the only measures in the Central Valley more likely to pass than fail were those in favor of an urban growth boundary.

Among the Central Valley's subregions, the Upper Sacramento Valley was the least likely to have growth-management tools in place and the Sacramento Metro area was the most likely to have such policies in effect (2.0 and 3.9 tools per city, respectively, Table B.3). It is interesting to note that cities in the North San Joaquin Valley and the South San Joaquin Valley were much more willing than cities in the other two subregions to use pro-growth tools (annexation and upzoning).

Table B.3
Percentage of Central Valley Cities with Growth-Management Tools,
by Subregion

Type of Growth-Management Tool	North Valley (N=26)	Sacramento Metro (N=22)	North San Joaquin Valley (N=25)	South San Joaquin Valley (N=44)	Total (N=117)
Average no. of tools per locality	2.0	4.3	3.9	3.5	3.4
Average no. of pro-growth tools	0.2	0.3	0.5	0.6	0.4
Average no. of slow-growth tools	2.1	4.0	3.3	3.0	3.1
Total no. of measures	48	85	97	150	380

Comparing subregions within the Central Valley, we find that residents and city councils of Sacramento Metro are much more likely to exert power over residential growth issues. For example only 13 percent of Sacramento Metro planners reported that citizen opposition to growth was “not at all important” in constraining growth compared to 32 percent in the Upper Sacramento Valley, 30 percent in North San Joaquin Valley, and 36 percent in South San Joaquin Valley. Similarly, only 13 percent stated that city council opposition to growth was “not at all important” in constraining growth compared to 63 percent in the Upper Sacramento Valley, 35 percent in the North San Joaquin Valley, and 50 percent in the South San Joaquin Valley. In general, the Upper Sacramento Valley and South San Joaquin Valley regions appeared to be least likely to be active in regulating growth through the initiative process, elections, or their city councils’ actions.

Although there have been relatively fewer land use ballot measures in the Central Valley than in other California regions, there appears to be a genuine concern among many residents about control over the future of growth in their communities. A Lexis-Nexis search of the three largest newspapers in the Central Valley (out of about 30 newspapers) going back ten years found 46 unique citizens’ groups actively involved in their communities. Many collected signatures for ballot measures, others developed alternative plans, and still others initiated educational

meetings. The vast majority of the articles contrasted the desire of residents for slow-growth policies against the city councils whose policies promoted residential growth.

The gap between slow-growth residents and pro-growth city councils can be accounted for in two ways. First, the citizens' groups, although prominent enough to make it into the local paper, were not large enough in membership to significantly affect land use policy in their communities. Alternatively, their collective power was less influential than that of developers. An analysis of local campaign contributions conducted by the *Sacramento Bee* led to a story suggesting a strong connection between developer contributions and the growth orientation of city councils (Korber, 2002).

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